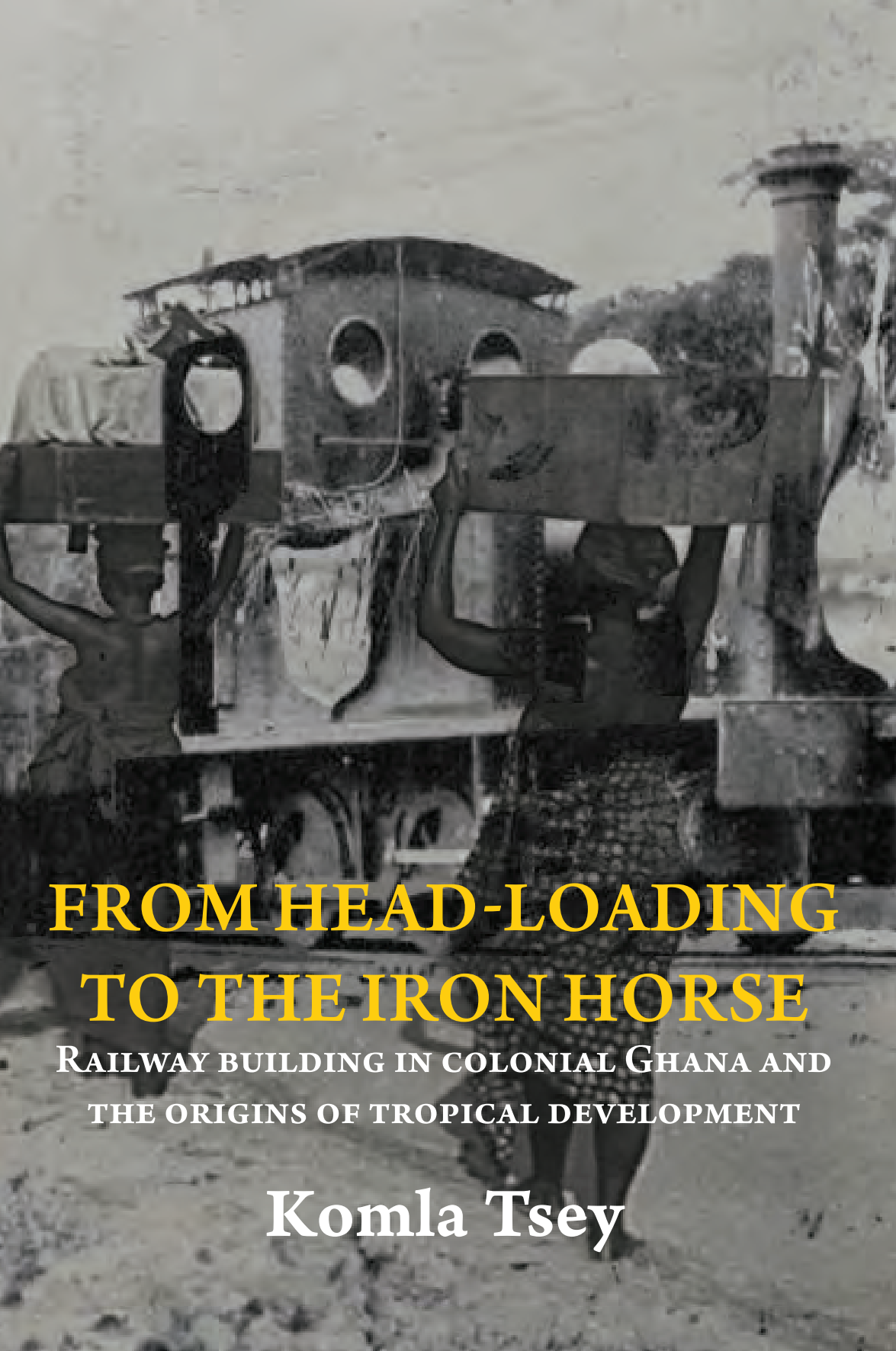




FROM HEAD-LOADING TO THE IRON HORSE

RAILWAY BUILDING IN COLONIAL GHANA AND
THE ORIGINS OF TROPICAL DEVELOPMENT

Komla Tsey

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tropical development*

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Introduction

From Head-loading to the Iron Horse tells the story of railway building in British colonial Gold Coast (modern Ghana) and its social and economic consequences. Two factors motivated me to write. First, I believe that there is a need for international development, as a relatively new intellectual and practice discipline, to engage more deeply with history.ⁱ Although there are excellent history texts on most countries and regions in Asia, Africa and South America, this wealth of knowledge is largely confined to history students and professional historians. In my experience, international development courses have very little historical content. A typical course will cover who the colonial power was, when the country became independent, and the extent to which it has become politically and economically stable. Yet, international development, which mobilises financial or human resources mainly from the industrialised world for the apparent benefit of people in poorer countries, has its origins in the late nineteenth- and early twentieth-century political economies of colonialism. A sound grounding in history, including political economy is essential if international development workers are to better understand the complex social, economic and cultural contexts in which they work.

My second motivation is the resurgence of academic and development interest in the tropical zones and the role that research and innovation can play in building healthier and sustainable livelihoods there. At James Cook University in Australia's far north Queensland where I work, the university's mission has been to improve life for the peoples of the tropics through research, teaching and innovation. To demonstrate their commitment the university has set up new research institutes, among them the Cairns Institute, and appointed several research professors, designated as Tropical Leaders, of which I am one. The aim is to undertake strategic research and development responsive to the opportunities and challenges facing the tropics. The university is also leading a consortium of academic institutions which will produce a *State of the Tropics Report* series to draw attention to the significance of the tropics as an 'expanding geo-political region' (in the words of the Vice-Chancellor), deserving global recognition.ⁱⁱ

While the climatic and ecological aspects of the tropics are reasonably straightforward to conceptualise and work with in research and innovation, the same cannot be said of the social dimensions. What makes social

relationships tropical? Is the term ‘tropics’ synonymous with climatic conditions, or are there other, unique ways of understanding them? For most people living there, the idea of studying the tropics is a somewhat artificial, European construct originating with Aristotle, who classified the world into three climatic zones – the Frigid, the Temperate and the Torrid. He believed that only the Temperate zone could support civilisation, as the Torrid (tropical) was too hot and the Frigid (arctic) was too cold.ⁱⁱⁱ For the inhabitants, the tropics are part of who they are and are the norm, not something exceptional. The knowledge and experiences of the inhabitants ought to form the core of any attempt to understand the tropics through research and innovation. Equally important, however, is that when studying the tropics with fresh eyes,^{iv} we do not ignore the views of those who originally formulated the concept, as they can assist us to determine whether, and if so how best, to achieve economic and social development in Africa, Asia and South America through international development. Focusing on tropical development over time will help international development practitioners to evaluate the values and motivations of the late nineteenth- and early twentieth-century advocates of tropical development against those of the early twenty-first century. If for no other reason, it cautions against uncritically occupying the high moral ground since the links between the past and the present may be stronger than we like to believe.

The story of British railway building in the Gold Coast in the late nineteenth and early twentieth centuries enables us to revisit the origins of international tropical development and the opportunities and pitfalls that this presented. Railway innovation provides the focus for this book, as it was the single most significant means of colonial penetration in tropical Africa during the first quarter of the twentieth century. In this period, road transport was still in its infancy. The Gold Coast subsistence society, which had always relied on head-loading (head carriage) as its principal form of transport, was propelled into the twentieth century on the back of the iron horse. The Gold Coast may give us a more positive picture of the social and economic consequences of railway building than could be expected from other tropical African colonies at this time, given its relative wealth and status as a model colony in which more pounds per capita were expended than anywhere else in West Africa.^v

Based on primary research from Colonial Office correspondence, Railway Departmental Annual Reports, *Blue Books*, *Government Gazettes* and other official publications held at the Public Records Office in London and

at the National Archives of Ghana, this book tells the story of the introduction and expansion of railways on the Gold Coast and the social and economic implications for modern Ghana. The term 'Gold Coast' is used flexibly to refer to the geographical area that has become present-day Ghana, because the colonial railways there were designated as 'Gold Coast Railways'. The Gold Coast and other colonial railway experience are compared with those of their European and North American progenitors in order to emphasise the unique features of the tropical experience.

The book is divided into three parts, each of which focuses on different aspects of railway development and operation. Part I examines the policy decisions that determined railway construction on the Gold Coast and the effect of those decisions on the configuration of railway lines and associated ports and harbours. This is approached chronologically, so that each step can be unpacked, evaluated and understood. It also enables us to establish the intentions behind railway innovation in Africa as distinct from the effects.

Part II considers the railways as a business and commercial enterprise, looking at how the railways were organised and how the resources and skills needed for construction and operation were mobilised. In this, I follow Alfred Chandler, who demonstrated that as they were the first large-scale commercial enterprises to be undertaken, railways faced novel problems in engineering, recruitment, training and organisation, mobilisation of massive investment capital as well as large-scale appropriation of land.^{vi} Solving these problems marked a significant step forward in managerial knowledge, training and organisation for large-scale industry generally. This part also assesses the 'spill-over' effects of a technology developed and perfected in one part of the world and transplanted in another. 'Technology transfer' is on trial here. Moreover, in British West Africa, where railways were owned and operated by the colonial governments, they occupied a central point in the formation of colonial policy. So, this part also sheds light on the British Government's attitude to public finance, labour and land tenure in the colonies.

Part III examines the effect of railway development on the economy of the Gold Coast and the impact of new modes of transport on urbanisation and public health. The period covered begins in 1879, when the first proposals for railway construction were made, and ends in 1929, by which time the basic railway network and associated ports and harbours had been completed. 1929 also marked the onset of the Great Depression, which ushered in a new phase in the colonial economy. Since that time, no new

railways have been built in Ghana, though the basic network has been modified and upgraded.

Before delving into railway development and operation, a historical overview of the peoples and regions that we now call Ghana is called for. This will help provide context for the railway story. Among the ethnic groups of Ghana, the Guans are believed to be first to have established permanent settlements. They extended their range mainly along the River Volta. The Guans were followed by the Akans, whose earliest known settlements date back to at least 1000 AD. They mainly inhabited the forest regions. The Ga, Adangbe and Ewe came in waves between the fifteenth and eighteenth centuries from present-day Benin and Nigeria and settled mainly in the coastal grassland regions in south-eastern Ghana. At about the same time, other migrants were entering the country from the dry savannah north. These groups assimilated and integrated with earlier settlers and became the present-day Mole-Dagbani people, and occupied the areas in present-day northern and upper Ghana. Initially, these groups lived in isolated settlements under family heads. State formations and centralised political authority developed much later, partly in response to increased trade and commerce.^{vii}

From the start, production and exchange were influenced by ecological and resource endowments. The coastal people, who caught fish and produced salt, traded these for palm oil and other foodstuffs cultivated in the forest regions. Similarly, kola nuts, produced in the Akan forest, were exported to the savannah regions in exchange for livestock. The people also engaged in long-distance trade. Gold, slaves and kola nuts were traded on the trans-Saharan route from a very early period and for several centuries, external commerce gravitated towards North Africa and southern Europe.

The desire to locate and control the sources of trans-Saharan gold brought the first Europeans, the Portuguese, to the coastal town of Elmina in 1471. Other European nationals soon followed and the direction of Ghana's external commerce increasingly shifted from the Saharan north to the Atlantic seaboard in the south. By the seventeenth century, the demand for gold and other tropical produce had been overtaken by a demand for cheap labour to work on sugar, cotton and tobacco plantations in the Americas and the Caribbean. For the next two centuries, millions of Africans were seized by more powerful groups and exported as slaves.^{viii}

By the early nineteenth century, it had become clear that the slave trade was neither profitable nor morally defensible. Britain, the leading nation in

the trade, was the first to ban it in 1807. Other European nations followed and by the 1830s, the slave trade had become universally illegal. Now, instead of exporting humans to produce raw materials in the New World for the benefit of European industry and commerce, Africans were expected to produce the raw materials within Africa itself. A 'legitimate' trade, involving the export of palm oil and kernels, groundnuts, cotton and rubber, was established in West Africa by the mid-nineteenth century. This led to renewed European interest in the region, spurred on by keen competition for the control of raw materials. In 1884, this culminated in the Berlin Conference, where the major European powers carved out and shared the entire African continent among themselves; colonialism was fully underway.

The Gold Coast Colony, the southern coastal parts of present-day Ghana, was the first to come under British rule in 1874 through the so-called 'treaties of protection'. Ashanti was annexed to the Gold Coast Colony two decades later, in 1896. British rule expanded to encompass the Northern Territories by the turn of the century, mainly through a series of treaties which Ferguson, a Fante civil servant, concluded with the chiefs of the area on behalf of the British Government. Togoland (the present-day Volta region of Ghana) came under British rule after the First World War, when Germany's African possessions were given to the Allied powers as mandated territories.^{ix}

The administration practised by the British was known as the Crown Colony system. At its apex was the Secretary of State for the Colonies, a cabinet minister based in London. He made policy decisions regarding the general administration of the Crown Colonies. The day-to-day running of the colony was entrusted to the Governor, who was resident there. The Governor was assisted by the Executive Council, which was made up of senior civil servants. There was also a legislative council, comprising both officially and unofficially nominated (later elected) members, which legislated for the colony. All laws were, however, subject to the approval of the Secretary of State for the Colonies.

The office of the Secretary of State for the Colonies has now been designated the Minister for Overseas Development. Clearly, the colonial origins of what is now called international development – tropical development included – cannot be overstated.

Introduction

i K. Tsey, *Rethinking Development in Africa* (Mankon, 2011).

ii S. Harding, The Tropical Agenda, *Journal of Tropical Psychology*, 1(1), 2–5.

iii Ibid.

iv Ibid.

v K. Tsey and S.D. Short, From Head-loading to the Iron Horse: The Unequal Health Consequences of Railway Construction and Expansion in the Gold Coast (Ghana). *Social Science and Medicine*, 40(5), 613–21.

vi A. D. Chandler Jr., *The Railroads, The Nation's First Big Business, Sources and Readings* (New York, 1965).

vii A. Boahen, *Ghana: Evolution and Change in the Nineteenth and Twentieth Centuries* (London 1975).

viii Ibid.

ix Ibid.

Chapter 1

A Slow Beginning, 1879–1895

The earliest phase of the Gold Coast railway system was marked by indecision and delay, resulting from a lack of commitment to a railway policy. Discussions began as early as 1879, but it was not until 1893 that the Colonial Office authorised surveys in the colony as part of a general scheme for the whole of British West Africa. Before 1893, initiatives came mainly from private speculators.

During the 1870s and 1880s, trade and communications between the coast and the interior depended almost exclusively on head-loading over rough and poorly maintained roads. There were, however, some attempts by the colonial administration to clear existing trade routes and construct new roads on which officials could travel. Chiefs were granted annual stipends for mobilising communal labour for road clearance, with an additional allowance of £2 per mile for work carried out.¹ As late as 1889, it was reported that:

Except in the immediate vicinity in the largest coast towns, there were no roads in the country. The so-called roads are mere footpaths 12–18 inches broad, with the high bush on either side, tortuous, blocked with falling trunks, flooded with water in the rainy season, interrupted by bridgeless rivers . . .²

These conditions seriously hampered trade. Head-loading was labour-intensive and expensive. For years, hammock men and carriers were paid one shilling (1/-) per day, plus threepence (3d) subsistence, which was the standard rate for all wage labour. To put this in perspective, it cost about £10 to transport a ton of goods 60 miles and the cost of transport amounted to about half the price paid to the palm oil and rubber producers for the goods.³ Transport problems for corporate mining activity in the interior were even more acute. Mining equipment had to be designed so that it could be dismantled into components weighing no more than 50 lb, so that each part could be carried by one person. Not only was this slow and inefficient, but it was not uncommon for porters to abandon the loads and return to their villages, making future mining activities problematic.⁴

In order to expand the Gold Coast Colony's trade and production and promote British mining in the western districts, the authorities believed that transport facilities had to be improved to meet the needs of exports, particularly of rubber. The earliest calls for the introduction of railways appear to have come from the expatriate community engaged in the Gold Coast's import-export trade. The Ashanti War of 1873-74 renewed interest in the gold deposits in the Wassau and Tarkwa districts and by 1878, two expatriate mining companies had commenced operations there. The first 'jungle boom' was underway and by 1882, twelve companies were engaged in gold mining in the colony.⁵

The first proposal for a railway came in 1879 when Fitzgerald, editor of the *African Times*, and Mercer, former Director of Public Works on the Gold Coast, sought a government guarantee for a proposed company to build three railway lines. The first line was from Accra to Kpong on the Volta and was to serve the eastern palm oil and cotton districts. The second was from Saltpond, to serve the palm oil and rubber districts of the Central Province. The third line was from Shama near Sekondi to the Wassau gold mines in the Western Province. When the Colonial Office failed to respond to the proposal, the two men persuaded some influential merchants with West African connections, including two Members of Parliament, to sign a petition on the urgent need for the railways. Armed with this, they submitted their application again.⁶ Two further proposals followed. The first was from Le Brun, a French merchant who was also Agent for the Netherlands Government on the Gold Coast, for a 50-mile line to link Elmina and Prahsu. The second was from Barry, a British engineer, for a coastal line to link Accra with Elmina. Then, in May 1883, 48 expatriate merchants banded together to float the idea of a 40-mile line from Elmina to open up the central agricultural areas.⁷

All these proposals were premised on substantial government assistance, as well as approval, but both the Colonial Government and the Colonial Office were extremely cautious. They had three areas of concern. First, all the schemes sought a guarantee of interest on the capital outlay. This had been a common feature of transport innovation in the British Empire during the mid-nineteenth century, but by the 1870s, it was coming under attack. In India, not only had it triggered widespread speculation and serious over-capitalisation, but substantial subsidies were being paid out of Indian revenues to British investors. To overcome this, from 1869, the Government of India began to build its own railways and from 1879, it embarked on a

policy of gradually taking over all the existing lines.⁸ With this in mind, the Colonial Office was reluctant to introduce the guarantee system into the Gold Coast. 'The days of guarantees are gone', one official noted in considering the Fitzgerald–Mercer proposal, although he was prepared to sanction a lower outlay figure than the promoters had suggested.⁹

Second, the railway speculators were seeking free grants of land along the proposed routes with the right to trade, cultivate and mine. In this way, the proposals can be seen as part of the scramble for mineral and forestry concessions for future speculation.¹⁰ The Colonial Office was concerned about the political and social consequences of such large-scale alienation in a colony where land remained under control of the chiefs. The Colonial Office therefore pointed out that it had no power to make land grants outside the immediate vicinity of the coastal forts and castles.¹¹ Similarly, when a northwards extension into Ashanti was proposed by Messrs Bircham & Company in 1887, officials replied that because Ashanti was not under British jurisdiction, they could not 'grant the ordinary legal facilities for railway construction'.¹²

The third area of concern for the Colonial Office was the suspicion that none of these promoters had sufficient private capital backing to merit serious consideration. When Fitzgerald and Mercer were asked to demonstrate their financial capabilities, their only response was that 'responsible capitalists' would never be attracted to the colony without some lead from the government.¹³ Similarly, when the Colonial Office asked Le Brun for evidence that his proposal was genuine and that private capital would be forthcoming, nothing more was heard from him.¹⁴ So, in the knowledge that many guarantee and concession hunters had dubious financial backgrounds, the Colonial Office set conditions that had to be met before they would consider any application. These included survey reports, estimates of potential traffic and information on the creditworthiness of the applicants. These, the Secretary of State argued, would ensure that agreements would be reached with people who could undertake the work and give assurances of its performance.¹⁵

While officials were prepared to consider private initiatives, opinion was coming round to the view that given the highly speculative nature of the proposals, railway building on the Gold Coast and in British West Africa as a whole should be a state undertaking. Thus, the Secretary of State for the Colonies, the Earl of Derby, commenting on the scheme presented by the 48 Gold Coast merchants, stated that if a private company could construct and

operate railways profitably, then the Colonial Government would do well to do so itself, as direct revenue would then accrue to the Treasury. Besides, the administrative and strategic needs of the colonial state would be better served by government ownership.¹⁶

All this meant that the initiative for railway construction was passed to the Colonial Government in Accra, which was slow to perceive the advantages. Governor Griffith in particular, whose term in office ran from 1883 to 1895, saw nothing but problems. His correspondence with the Colonial Office repeatedly stressed the shortage of labour for large-scale projects, and he pointed out the severe tropical environmental hurdles that would have to be overcome. Above all, he was concerned with the financial constraints on the Colonial Government. Commenting on a proposal for a line from Sekondi to Tarkwa in 1889, he wrote:

The time has not yet arrived when this Government could undertake the construction of such a line or the provision of any such guarantees . . . If ever the development of the country and the gold mines justified such a step which I hope may yet prove to be the case, the question can be considered in relation to the state of the finances at the time.¹⁷

Despite the apparent lack of interest, the railway question never entirely disappeared from the official papers. Britain's competitors in West Africa were proving active in the field of transport and were beginning to penetrate areas which British merchants regarded as within their sphere of influence. To the east, in German Togoland, the Lome-Kpando-Kete Krachie road was, by 1890, successfully competing with the Volta route for the Salaga and Kentampo markets (these would later become the Northern Territories).¹⁸ The Togoland administration had also granted a concession to the German Colonial Railway Construction and Operating Company in 1890, which would receive a grant of land in return for an annual rent and share profits with the government.¹⁹ To the west in the French Ivory Coast, the construction of roads into the interior exceeded comparable attempts on the Gold Coast. Consequently, British commercial interest groups began to perceive railway development as the only way to protect and expand their activity in the region. This had become all the more urgent in view of the fact that the Brussels Conference of 1889-90 had called on all European powers to back their claims to colonial territories in Africa by establishing effective administrations, particularly through the construction of railways and roads.²⁰

The London Chamber of Commerce immediately made representations to the Colonial Office, stressing the need for both improved road communication and the construction of railways to establish their control over the interior as far as the Niger, the 'natural boundary' of the Gold Coast.²¹ The Manchester Chamber of Commerce later described growing international rivalry in starker terms. 'The French and Germans', the Chamber noted, 'have established firm footholds on the coast, and are pushing inland with a tendency to converge in the North.' This called for the construction of railways into the interior to prevent further incursions into British trade and commerce.²²

Meanwhile, the rate of applications from private railway promoters to the Colonial Office was accelerating. The result was that from about 1890, official policy on the railway question slowly became more positive. Early in 1890, the Colonial Office sent questionnaires to the French and Portuguese governments requesting information on 'the manner in which railways are worked in their African Colonies'.²³ On the Gold Coast itself, a government-appointed Committee on Economic Agriculture, whose members included commercial interest groups and colonial officials, had submitted a report in 1889 calling for the immediate construction of railways that would develop the 'vegetable resources' of the country.²⁴ Consequently, in 1890, a 4½-mile line between Axim and the mouth of the River Ankobra was seriously considered 'to give an idea how a railway would fare in the colony'.²⁵ Then, in September 1891, Governor Griffith suggested a 300–400-mile network, the first phase of which was to form a trunk route from the most central port of the colony into the interior. A line through the agricultural districts, the Governor argued, not only offered some prospect of financial return, but would also form the basis for later railway development.²⁶ Clearly, the report by Committee on Economic Agriculture informed Griffith's proposal.

Although the Gold Coast was by far the most popular colony for the British railway promoters, mainly because of its gold deposits, other British colonies were not overlooked. A significant number of the Gold Coast applicants proposed simultaneous schemes for Lagos and Sierra Leone, the other two British West African territories at the time.²⁷ Thus it was against this background that the Colonial Office authorised railway surveys on the Gold Coast as part of a scheme for West Africa as a whole. Commenting on the proposals from Lord Gifford, Gower Sadd and Henry Cooper early in 1892, Secretary of State, Lord Knutsford, declared:

The colony has nothing to gain from the intervention of any of these applicants . . . But while these particular proposals cannot be entertained, I think that the time has come when steps should be taken to decide upon the policy to be adopted by the Government with regards to the construction of railways.²⁸

The first question to be answered, the Secretary of State argued, was whether railways should be constructed at all. Only once surveys had been undertaken would he then decide whether private enterprise or public funds should be used. Although the decision did not imply a definite commitment to railway construction, it was nevertheless a significant step because, for the first time, the Colonial Office was committing funds for railway surveys on a large-scale.

Even before Lord Knutsford's instructions were received, Griffith had recommended that Captain J.I. Lang of the Royal Engineers, who had had some experience in the colony, be seconded to undertake the work. In December 1892, Lang arrived in the colony and shortly afterwards, informed Griffith that he considered Kormatine, 2½ miles west of Saltpond, 'an ideal landing place' and that the line would go to the agricultural districts of Insuam (Oda). Lang's proposal followed the 'central trunk route' strategy advocated by Griffith himself. In fact, the Governor informed the Colonial Office:

the district selected for the railways is through the oil producing countries up to Nsuiam . . . It is also geographically the most central town of the colony and on that account it is suitable as a converging point for branch railways to Ashanti on the one hand and Eastern Akim on the other hand.²⁹

Lang's final report (October 1894) included two alternative routes – one from Kormatine near Saltpond to Nsuiam (Oda), a distance of 65 miles, which was estimated to cost £296,180; and the other from Apam, 26 miles east of Saltpond, also to Nsuiam (Oda), a distance of 55 miles, which was estimated to cost £255,816. Lang stressed that both lines would go through fertile and thickly populated country and would therefore soon be profitable. His report was referred to William Shelford, a Westminster railway consultant with extensive experience in India and South East Asia, who had been appointed consulting engineer for all West African railway proposals. In

March 1895, Shelford's reports were received in the Colonial Office. He was enthusiastic about the scheme and recommended the shorter Apam–Nsuiam (Oda) route. Although critical of Lang for grossly underestimating the cost, and revising the estimate for the line at £331,044, Shelford was confident that the potential traffic would be at least 40,363 tons a year. At a rate of 4d (four pence) per ton mile, the line would be profitable.³⁰

In spite of this, the Colonial Office continued to drag its feet, deferring a decision on the Gold Coast proposal until all the other West African surveys had been submitted and the consulting engineer's reports on them received. In response, the various West African commercial interest groups sent a powerful delegation to the Colonial Office in June 1895. The provision of railways, the delegation argued, would not only result in the expansion of British commerce in West Africa but, more importantly, would create employment and stimulate British industry at a time of intensifying international competition. They also argued that railways would counteract French and German expansion in the region. If, however, financial constraints rendered railway construction throughout the whole of West Africa impossible, the delegation argued that the Gold Coast would be an ideal starting point because of its surplus revenue, population, palm oil, rubber resources and, above all, its gold deposits. The proposals had, however, been put to the Secretary of State the Marquess of Ripon, whose government had fallen the previous day.³¹ The delegation therefore went before the new Secretary, Joseph Chamberlain.

No matter what the interests and motivations are, bringing about major public policy changes can take years, if not decades, to achieve, especially when questions of who will pay for the infrastructure and whether such initiatives will necessitate new taxes are at stake. There was no single monolithic colonial interest; rather the process involved balancing diverse metropolitan interests on the one hand and those of the colonised on the other, though the latter were always given less priority. As far as the global spread of British railway innovation and associated international capital was concerned, Africa (with the exception of white settler southern Africa) was the last to attract attention, well after the other tropical regions of South America and Asia. The parallels with international investment capital interests in Africa in the early twenty-first century are obvious.



Timber Cutting - Hauling a dressed log through the bush en route to creek. Series No. 9.



Timber Cutting - Hauling a dressed log through bush en route for Creek. Series No. 9.

Timber Cutting - Hauling a dressed log through the bush en route to Creek. Series No. 9.



Timber Cutting - Squaring and dressing logs. Series No. 4.



Timber Cutting - Squaring a log for dressing. Series No. 6.

Timber Cutting - Squaring and dressing Logs. Series No. 7.



View Downstream

Chapter 2

The Development of the Western Line, 1895–1912

A metals industrialist-turned-politician, Joseph Chamberlain became the leading spokesman for ‘economic imperialism’ among commercially minded British politicians of his age.³² He had always had a grand vision of empire building and regarded British colonial possessions as ‘one large estate’ in need of systematic development. His politics and philosophy, particularly with regard to the tropics, were largely the result of international trade rivalry with the rise of Germany and America as industrial nations – each with massive resource bases, modern technology, concentrations of finance capital and aggressive overseas marketing practices – threatening Britain’s hitherto unrivalled hegemony in world trade.³³ According to Chamberlain, if Britain was to withstand competition, it was imperative that it gain control over new markets and sources of raw materials in the hinterland of the colonies through the construction of railways. This, he argued in 1893, would stimulate investment and create employment in British industry at a time of rising unemployment:

I firmly believe that railways [in the Colonies] will be a good investment, and if you spend this money, the working classes of the country and the people in the slums (of the UK) will benefit, for the whole of the work will be done in this country.³⁴

As Secretary of State for the Colonies, Chamberlain considered his most important task to be the promotion of the economic development of the ‘estates’ and he set out to convince private metropolitan entrepreneurs that responsibility for this lay with them as much as with the government. In his view, even if private capital was to be attracted to the colonies, government alone could provide the infrastructure:

Individual enterprises will till the fields and cut the timber, and work the mines; but Government and Government alone, can make roads and railways. This is the true Province of Government in new Countries. Until it is recognised by Great Britain, she will not have fulfilled her obligation to the Dependencies which she now holds under her rule.³⁵

He was particularly enthusiastic about the Gold Coast because of its rich supply of gold, the mining of which he believed would stimulate other sectors of the economy.³⁶

In October 1895, the consulting engineer's reports on the various railway surveys were received in the Colonial Office. Barely two weeks later, Chamberlain made the major decisions. First, the construction of the initial sections of the proposed railways in each colony should commence without further delay. Second, the colonial governments, rather than private enterprise, should construct and own the lines. The standard colonial gauge of 3 feet 6 inches was approved (except in Sierra Leone where railways adopted the narrower 2 feet 6 inches gauge). Third, the departmental system, under which the governments would become their own contractors, was adopted, rather than the contract system by which work was undertaken by private contractors under tender. The Crown agents, on the advice of the consulting engineers, would appoint a resident engineer who would be responsible for the actual construction of the project. Both the resident engineer and his staff would be public servants, answerable to the Colonial Government for administrative and disciplinary purposes. For technical matters, the resident engineer would be responsible to the consulting engineers, who would also advise the government.

The Crown agents also had responsibility for organising and carrying out work in the United Kingdom. This included the purchase of materials, engagement of staff and financial administration. Significantly, all stores and equipment, except those available locally, had to be procured in the United Kingdom. Finally, Chamberlain authorised the Crown agents to utilise the colonies' reserve funds to finance the preliminary stages of construction.³⁷ Work then began on the Lagos and Sierra Leone projects. The Colonial Office, however, ordered further surveys to be undertaken on the Gold Coast; work would not begin there until the survey reports were evaluated.

We now turn to the reasons for this delay.

Governor Maxwell and the Malayan Paradigm of Tropical Development

Following the end of Governor Griffith's appointment in 1895, the original railway strategy was subject to drastic revision. Griffith's successor was Sir William Maxwell, with whose appointment economic policy in the Gold Coast was turned on its head. When the Colonial Office appointed

Maxwell, he was principally given the task of carrying out the imperial policy of territorial expansion in the region by bringing Ashanti and the Northern Territories under British rule.³⁸ Maxwell's economic policies for the Gold Coast Colony also had serious repercussions for railway policy. Before his arrival, Maxwell had served in the Malay States, first as Straits Commissioner for Lands and then as Resident. During this period, he had helped lay the foundation of colonial political economy in the Straits Settlements.³⁹ The Malayan authorities wanted to create an environment conducive to private enterprise by providing auxiliary services, such as railways and roads. By the early 1890s, short latitudinal lines from the western half of the peninsula to serve the tin mines had been constructed. These lines linked the mines with the nearest coastal ports from where the ore was shipped to Penang or Singapore.⁴⁰

When Maxwell arrived on the Gold Coast, he assumed that the conditions there were similar to those in the Malay States and that policies practised in the Settlements could be transferred to the Gold Coast. Having witnessed the contribution of tin mining to economic growth in the Malay States, Maxwell favoured promoting gold mining in the Gold Coast in order to attract British capital. Thus, his familiarisation tour of the country concentrated on the mining districts of the Western Province, where he identified Wassaw, near Tarkwa, as the centre of the mining industry:

I am very much impressed with the capabilities of the Wassaw District. It is well watered, the climate is good and the configuration of the hills, the character of the forest and the nature of the soil reminded me of the Malay Peninsula . . . The richness of the auriferous deposits is remarkable and it is very desirable that this gold region should be better known, and by an equitable system of land and mining regulations, laid open to British and Colonial enterprises.⁴¹

The main reason why government policy until then had not favoured the mining companies, Maxwell argued, was that concessions were acquired from the chiefs so that no revenue accrued to the Colonial Treasury. Nor did the mining companies pay any export tax on gold or timber, which were produced in the same districts. This, which Maxwell called an anomaly, would be rectified by new legislation on land tenure. In return, the government would improve communications to the mines.⁴²

Equally important was the Governor's suggestion that, like the railway network in the Malay Peninsula, several light and short latitudinal lines should be constructed from the coast to link the centres of production in the interior. This would circumvent the need to build expensive trunk routes and large-scale harbour works.⁴³ Addressing representatives from the Accra Chamber of Commerce, the Governor declared that railways were useless unless considered in relation to port developments and other means of inland transportation, such as rivers and roads. He was, however, particularly critical of the cart roads the Germans were building in Togoland. For this purpose, surveys would be undertaken on the coast to locate suitable sites for lighterage ports. Similarly, the mouths and rapids of the Rivers Ankobra and Volta would be surveyed with the aim of modifying them for the use of shipping traffic to complement railways.⁴⁴

In July 1895, Maxwell submitted his comments on the report of the proposed central link to the Colonial Office. While conceding that 'the line traversed a rich palm-oil region and therefore the Government may accept and construct it', he nevertheless criticised Lang for exaggerating the political advantages that would come with its extensions to Kumasi.⁴⁵ Government policy, he asserted, was to build a short line to serve the mines at Tarkwa as well; therefore, the proposed central route should form only one of several short lines from the coast into the interior. He commented further that Lang's scheme was designed for 'a much better and expensive line', one that was incompatible with the light and cheap latitudinal railway system he was advocating. For this reason, Maxwell argued that the report should be sent back to the consulting engineers for reconsideration.⁴⁶

Next, the local administration turned its attention to publicising the mineral potential of the country with the aim of tempting private investors. Between 1895 and 1898, official reports and public statements were full of confident, often exaggerated accounts of the Gold Coast's gold deposits. One report stated that the Western Province alone had 13,000,000 tons of bunter reef, from which no less than £40 million worth of gold could be extracted within ten years if the cyanide refining method was adopted. The operation would require an initial investment of £2 million and the area would permit 40 companies to work, each returning a monthly profit of £30,000.⁴⁷ The report assumed that railway communication would soon be established.

The various railway lobbies were not slow to respond, exerting pressure on both the local administration and the Colonial Office in an attempt to

influence policy. In May 1895, the mercantile community in Accra had sensed the shift in government attitude towards the proposed central rail route and expressed concern about 'total neglect' in the formulation of policy. They advised the new Governor to 'examine and balance very well the conflicting interests with regard to railways'.⁴⁸ In July when the engineer's report was published, both the Accra and Manchester Chambers of Commerce called for the immediate construction of the central route, though they argued that Accra rather than Apam should become the coastal terminal as Accra already had a large concentration of commercial activity with heavy fixed capital.⁴⁹ In December 1895, the West African Trade Sections of the Manchester, Liverpool and London Chambers of Commerce repeated their call for the construction of railways which would develop the 'vegetable resources'⁵⁰ of the country rather than minerals.

In contrast, the mining lobby was more circumspect. Between 1895 and 1897, their main concern was to secure government validation for their concessions under impending legislation. It was not until 1897 that two of the mining companies urged the Colonial Office to construct the Gold Coast's first, 'pioneer' line in the Western Province to serve their mines. They argued that, in addition to direct revenue to the Colonial Treasury that would come from royalties, profits from gold mining would benefit the British investing public at large.⁵¹

In the meantime, the Colonial Office had authorised more railway and harbour surveys. In December 1896, the consulting engineers were asked to carry out surveys from Sekondi-Takoradi on the coast to the mining districts of Tarkwa, and from Accra to Oda (Nsuiam).⁵² The latter had become necessary following the demand that Accra be made the terminus for an eastern-central rail route. At the same time, Messrs Coode, Son and Mathews, a Westminster harbour construction firm, was engaged to examine the entire coast and recommend the most suitable sites for the development of lighterage ports.⁵³

The weight of opinion exerted by both Maxwell and Shelford had its effect. The railway and harbour reports formed the subject of a Colonial Office conference in July 1898, at which representatives of the West African commercial and mining lobbies were informed that the Sekondi-Tarkwa line, the clearing for which had already begun, was to be constructed first and that Sekondi, rather than Takoradi, would be the terminus. As soon as it was completed, two lines were to be constructed from Accra, the first either

direct to Nsuam (Oda) or via Apam, and the second to Kpong, on the Volta, to serve commercial and agricultural interests.⁵⁴

Construction of the Sekondi–Tarkwa Line

The first task was to erect a wooden jetty at Sekondi so that construction materials could be landed. Next, staff quarters, workshops, running sheds and a turntable were built, which together transformed Sekondi into a base for the whole construction workforce.⁵⁵

Construction of the line itself proceeded extremely slowly. First, as a result of an engineering strike in Britain in 1897, materials were not delivered until early 1899. Second, as a ‘pioneer’ railway, the only means available for transporting materials and equipment inland was by head carriage. In addition, the line went through very dense tropical rainforest, which according to one observer, ‘rarely permits a view of more than fifty yards’.⁵⁶ This had to be cleared, which was reportedly incredibly time-consuming and labour intensive. It was reported that it took fifteen men six days to fell one species of tree and that several of these were encountered.⁵⁷ Furthermore, the soil was soft clay, which posed drainage and ballasting problems. No suitable ballast material was found in the area and workers had to resort to the labour-intensive method of collecting boulders and crushing them manually. Over 500,000 tons of boulders were required.⁵⁸ Work was also handicapped by labour shortages, which were complicated by political uprisings in Ashanti which meant that railway workers were drafted from time to time as carriers for the British forces. To the Africans, working on the railways was a form of military conscription. It was only by the deployment of armed police, ostensibly to guard against Ashanti attack but in reality to prevent labourers from deserting, that construction could continue.⁵⁹ Once Ashanti was finally defeated in March 1901, the 40-mile Sekondi–Tarkwa line was completed just four months later.

The Tarkwa–Kumasi Extension

When the Colonial Office authorised the construction of the Sekondi–Tarkwa line in 1898, it did not envisage that the line would be extended 128 miles to Kumasi, the heart of Ashanti. In fact, Acting Governor Hodgson had maintained in 1898 that, for administrative and military convenience, a railway communication with Kumasi should start

from Accra.⁶⁰ However, in 1900 when the consulting engineers were asked to consider the most suitable route to adopt for a railway to Ashanti, they backed the extension of the Sekondi–Tarkwa line.

The main reason for this is linked to the imposition of British colonial rule over Ashanti in 1895–96, after which time metropolitan mining capital flowed into the region. This process started in 1892 when three British concession seekers, J.P. Brown, J.E. Biney and J. Ellis, approached C.A. Cade, a British merchant stationed at Cape Coast, with an offer to sell him a 99-year lease over the Obuasi gold mines,⁶¹ which they themselves had been working since 1890.⁶² Cade could not respond to the offer until 1895. In that year, he formed the Cote d’Or Company Limited and, with the assistance of Biney and his friends, Cade acquired the property from Nana Kweku Osai of Bekwai for £200.⁶³ But for the next two years, Cade’s efforts to mobilise funds raised no more than £4,000 and his demand for Colonial Office recognition was simply ignored.⁶⁴ Consequently, in April 1897, Cade decided to sell to Fred Gordon, a London hotelier and chairman of the Gordon Hotels Company. Gordon, together with a group of British businessmen including four Members of Parliament, floated a new company as a successor to Cote d’Or, called Ashanti Goldfields Corporation.⁶⁵ The company had a nominal capital of £250,000 and Cade remained as a shareholder. A Crown agents’ inquiry showed the shareholders to be ‘very wealthy and influential members of the financial community’; Gordon in particular had been successful in business.⁶⁶ Thus, with the financial credibility of the new company established, on 3 June 1897, the Crown agents entered into an agreement with the Ashanti Goldfields Corporation on behalf of the Gold Coast Government. This gave a 100-square mile concession with monopoly rights to mine, cut timber and trade in Ashanti in return for a 5 per cent royalty.⁶⁷ By October 1897, Ashanti Goldfields had commenced mining at Obuasi, which later became and to this day remains one of the world’s richest gold mining companies.

The first step towards the establishment of railway communication with Ashanti came in August 1898 when Gordon suggested to the Colonial Office that the Sekondi–Tarkwa railway scheme should be upgraded into a major trunk route to serve their property at Obuasi. He offered to pay up to £5,000 towards the cost of the survey.⁶⁸ The Colonial Office turned down the offer because ‘no assurance can be given for the line’.⁶⁹ The following year, Gordon renewed his request, this time with an offer to guarantee traffic on the line to cover capital charges for ten years.⁷⁰ In the meantime, the colonial

authorities were beginning to recognise the need for railway communication to the region. Although Kumasi had been occupied and the king exiled, the establishment of British rule in the region was far from assured. 1896–1900 was a period of ‘war fever’ as troops loyal to Prempeh regrouped in the bush.⁷¹ In March 1900, just when Acting Governor Hodgson had declared that the king was in exile and that the British had seized the Golden Stool, the most sacred symbol authority of the Ashanti monarch, another full-scale war erupted. Now, the Colonial Office could see that the immediate construction of railways into Ashanti was imperative if the resistance was to be crushed once and for all.⁷² It had also become evident that Chamberlain’s hopes of obtaining substantial imperial financial assistance for the West African railway projects had failed. Consequently, the Colonial Office began to take the Ashanti Goldfield’s offer more seriously since it would ‘relieve the Government of a very large proportion of the risk of construction’.⁷³ At this point, the financial interest of British mining capital and the strategic interest of the colonial administration had converged and the Malayan paradigm was being abandoned.

Negotiations between the Crown agents and Ashanti Goldfields Corporation culminated in a contract early in 1901. The government undertook to extend the line from Tarkwa to Kumasi and in return, Ashanti Goldfields and its subsidiary, Ashanti Consuls, agreed to meet any losses up to £30,000, representing capital charges on the estimated £1 million cost of the extension on the railway, for twenty years from the date the line reached Kumasi. If the net receipts in any particular year exceeded 4½ per cent of the capital outlay, the company would benefit from reduced tariffs. The company would also be a party to setting all railway tariffs, though the colonial administration reserved the right to carry troops and stores on the railways at ‘cost of conveyance’.⁷⁴ This was a new phase in the role of private capital in colonial railway development – a private company was now providing security for the line.

The extension to Kumasi was authorised at a time when the uncertainties created in the South African gold mines as a result of the Anglo-Boer War, together with high world market prices for gold, had led to a short-lived gold boom in the Gold Coast. At this time, more than 400 companies were floated in London for mineral exploration in the country.⁷⁵ Consequently, the mining lobby was now more influential. Companies whose properties lay beyond Tarkwa lobbied for a route for the proposed extension that would serve their mines. On the other hand, Ashanti Goldfields Corporation

wanted the line to run directly to its own property without reference to the demands of the other mines. In the end, the Colonial Office ruled that the extension should, as far as possible, place all promising mines on the railway route. Eventually, the engineers adopted a route that served the properties of Wassau, Abosso, Cinnamon Bippo and various other mining companies.⁷⁶

The extension, which started in June 1901, had, by December 1902, reached Obuassi, 86 miles beyond Tarkwa and the permanent way was far advanced towards Kumasi. By March 1904, the erection of permanent bridges and ballasting was complete, affording a direct link between Sekondi and Kumasi. In all, there were nineteen stations, the majority of which had military fortifications.⁷⁷

The total cost of the entire 168-mile route in 1904 stood at £1,756,031, of which £366,501 was the cost of the Sekondi–Tarkwa section (40 miles). The balance was the cost of the Tarkwa–Kumasi extension (128 miles), a figure that exceeded the original estimate of £824,460 by more than £500,000. Construction costs were higher on the Gold Coast than in the other West African colonies.⁷⁸ Yet despite this expense, the Sekondi–Kumasi line had serious engineering defects, including abnormally steep gradients as well as very sharp curves. Drainage was poor and the ballasting insufficient.⁷⁹ Not surprisingly, the role and influence of the Ashanti Goldfields Corporation in collaborating with the consulting engineers, and indeed the suitability of the departmental system of railway construction, came under question, especially when a financial scandal involving Ashanti Goldfields and the engineers came to light. Given the advantages of an early rail link to Obuassi, the Corporation had undertaken to pay the engineers £1,000 for each month that the line to their property at Obuassi was completed ahead of schedule. As it turned out, the line was completed to Obuassi six months ahead of schedule.⁸⁰

The Kumasi Railway and Ashanti Politics

After five years of uncertainties concerning funding, problems associated with pioneer projects and Ashanti resistance to colonial rule, a railway communication was established between Sekondi and Kumasi. The completion of this ‘pioneer’ line marked a very significant step in the political history of the country. Celebrations accompanied the arrival of the first train in Kumasi. An eyewitness account stated:

The first train was to arrive at Kumasi on October first 1903. It was due at about 11 o'clock, and was to be driven by Mrs Hurst, the wife of the Chief Engineer. Sir Donald Stewart, the Chief Commissioner invited all the chiefs to come in for the opening. I never saw such a collection of chiefs the whole time I was out on the coast. They all had their full show of gold ornaments, and their best umbrellas. There were thousands there. A lot of fog signals had been laid on the rails and the chiefs had been served out with gunpowder to fire off.⁸¹

The celebrations not only symbolised the triumph of British Imperialism over Ashanti's determination to preserve its autonomy but, more importantly, it represented the ascendancy of the collaborationist elements within Ashanti politics. Following Sir Garnet Wolseley's military expedition to Kumasi in 1874 and the civil war in Ashanti, British policy had aimed at supporting secessionist divisional chiefs.⁸² Although by the 1890s, Kumasi had virtually restored unity within its empire, British influence had left a permanent mark. In 1895, Bekwai, one of the powerful Ashanti divisions, defected to the British and allowed Cade access to the rich Obuasi gold mines.⁸³ As one might expect, during the final resistance in 1900, Bekwai fought alongside the British troops, while some other divisions remained neutral.⁸⁴ With King Prempeh and fifty-six leading Ashanti chiefs and their families exiled to the Seychelles and the Golden Stool in London, the railway which was originally intended to carry British troops to Kumasi was used early in 1904 to organise an excursion for the Ashanti leaders to Sekondi to demonstrate to them 'the true benefits of adapting themselves to the new mode of transportation'.⁸⁵

The Mining Companies and Construction of Branch Lines

Following the Ashanti Goldfields agreement, the Colonial Office introduced guidelines designed to encourage partnership between government and private enterprise as it was 'not likely government can undertake all by itself and private capital might come in'.⁸⁶ Under the guidelines, any party interested in a railway line could approach the government and deposit the sum required for a survey, though the administration would have the right to determine how the line was to be constructed.

It was in line with this that Broomasi Mines Limited circulated a letter early in 1903 calling for backing for the construction of a branch line from Tarkwa to Prestea.⁸⁷ In April of that year, Percy Tarbutt took up the matter with the Colonial Office. Tarbutt put forward a proposal to advance £150,000, which was the estimated cost of construction, to the Colonial Government at 3 per cent interest to be repaid within two years. However, the Colonial Office procrastinated and, following Tarbutt's death, the negotiations collapsed.⁸⁸

The scheme was not revived until 1906, when Edward Davies of Fanti Consolidated Mines Limited approached the Crown agents with a similar proposal. His estimate for the 18-mile branch line was £120,000 and the mine owners offered £100,000 towards the construction cost. The gauge and equipment would be the same as those of the Sekondi–Kumasi line. Fanti Consolidated Mines would also guarantee traffic up to £600, the annual capital charges.⁸⁹ The Colonial Office agreed and, in 1908, the consulting engineers were authorised to undertake the project departmentally. The work was completed in January 1911 and the 18-mile Tarkwa–Prestea line opened to public traffic. The mine owners also constructed private sidings and tramways from the main line to their properties to transport wood fuel, timber and general stores.⁹⁰

Policy Implications of the Western Line

As far as the western railway was concerned, the system as a whole was built primarily to serve the interests of expatriate mining capital. Indigenous trading and agricultural needs were afforded a lower priority. The introduction of railway communication with Kumasi marked the inception of formal British colonial rule over a major part of what was to become present-day Ghana.

The appointment of Governor Maxwell as described in this chapter also demonstrates the extent to which economic development policies were transferred wholesale from one tropical colonial setting to another. If a policy or innovation works in one place, it seems to make sense to adopt it elsewhere, rather than endlessly reinventing the wheel. The problem is that development is highly context-specific. In translating what are commonly called evidence-based approaches to development from one setting to another, development practitioners and policy-makers alike must not overlook the centrality of context.



The Asantehene and His Excellency the Governor,
Sir Arnold Hodson, K.C.M.G.

Asantehene and HE. the Governor Sir Arnold Hodson 31st January, 1935



The Asantehene swearing the Oath of Allegiance
to the Ashanti Nation.

Asantehene swearing an oath



At a Durber



Bantamah King's cemetery



Chief Executioner & British Commissioner Coomassie



Chiefs and people assembling for a durbar



Colonial building Kumasi



A Temporary Bridge over the Suyam River



Building the Ancobra Bridge



Building up the Grade to Track Level



Levelling and Ballasting the Line



Testing a bridge on the Gold Coast Railway

Chapter 3

The Eastern Line and the Development of Lighterage Ports, 1904–1918

Sir John Rodger and the Rearticulation of the Tropical Malayan Paradigm

In 1898, when Messrs Coode, Son and Mathews published their report on Gold Coast harbours, the colonial administration was particularly drawn to the section dealing with the railway line from Accra to Volta River commercial town of Kpong. This line, it was argued, would tap the oil palm-producing areas of Krobo and Eastern Akwapim, as well as stimulating cotton cultivation in the semi-arid Volta districts. Additionally, it would facilitate the movement of government stores via the Volta to the Northern Territories and would bring the Government Sanatorium and Botanical Station at Aburi within easy access of Accra so that ‘Europeans will be able to reside in this delightful spot, coming daily to their offices in Accra’.⁹¹

Given these commercial and administrative advantages, Governor Nathan obtained the Secretary of State’s approval in 1902 and construction was expected to start as soon as the western line had been completed to Kumasi.⁹² By that date, however, there had been a shift in government attitude to the proposed Accra–Kpong line. The previous year, Nathan had retired. His successor was Sir John Rodger, and with his appointment the Malayan transportation paradigm was forcefully rearticulated. Rodger, like Maxwell, had served for several years in the Malay Settlements. Not surprisingly, he was in favour of building short latitudinal lines from the coast into the interior as well as improving the waterways for heavy shipping:

When dealing with the general question of transport in this Colony, we should, in my opinion consider the sea the main line of communication and endeavour to connect our coast towns with the various planting and mining districts at as many points as possible by means of rivers, roads and railways.⁹³

The new Governor called for the Accra–Kpong proposal to be dropped since the Volta river route, though ineffective, would still serve the eastern

borders of the country. He suggested that the line should be re-routed from Accra to Mangoase, which he had identified as 'the centre of the cocoa industry'. In addition to tapping into new country, such as the Eastern Akim Goldfields, which had hitherto proved unworkable for want of transport, this scheme would also avoid competition with the Volta. Like the original Accra–Kpong proposal in 1898, social and administrative convenience continued to inform the selection of the Accra–Mangoase route. The Accra Chamber of Commerce envisaged a possible extension through Begoro to the Presbyterian Mission Station in the cooler mountainous region of Abetifi in order to provide a holiday resort for Europeans.⁹⁴ A similar sentiment was expressed at the Government Secretariat. One official argued:

If this railway is to be made, there is no use in stopping at Mangoase, it should go not to Korforidua, but to the bend of the Densu [river], where the Kantenke falls . . . there is a beautiful site here for European township, and I think it would be found that the power obtainable from this falls might be put to great use in connection with the railways.⁹⁵

Given that a railway line from Accra to Mangoase could serve both the administrative and social needs of the expatriate community as effectively as a line from Accra to Kpong and the emergent cocoa producing districts and the gold mines of Akyem, it was not surprising that Rodger's revival of the Malayan railway development paradigm won the unanimous approval of the railway interests.

The Construction of the Accra–Mangoase Line

Unlike the Western line, which utilised a departmental system of construction, for the Accra–Mangoase line, construction of the 40-mile stretch was open to tender. There was disquiet over the high costs, as well as constructional deficiencies in the 'pioneer' western line, associated with allegations of financial malpractice against the resident engineer and problems of administrative control under the departmental system. Members of the West African commercial lobby therefore began to argue for the adoption of the conventional contract method for future railway development.

When the Loans Ordinance was introduced in the legislative council and the unofficial members unanimously voted against the departmental system

at the second reading stage, both the Colonial Office and the local administration agreed to give the contract system a trial. Following this, in August 1907, the Colonial Office authorised the Crown agents to invite tenders for the construction of the Accra–Mangoase railway. At the close of the tender period, three applications had been received but only one, from Mr Murphy, a civil engineer in Dublin, was ‘worthy of consideration’.⁹⁶ Although the West African Section of the London Chamber of Commerce criticised the Crown agents for their failure to give sufficient publicity to the call for tender,⁹⁷ the agents awarded the contract to Murphy on 18 January 1909. The contract was for £165,614, excluding the cost of permanent way and other specified materials, which were to be supplied by the Colonial Government. The contract also included the maintenance of the line for a period of one year from the date of completion.⁹⁸

Murphy started work early in 1909. By the end of the year, earthworks had been completed to Mangoase. Ballasting had also been finished to mile 36 and all bridges and culverts were nearing completion. The main stations at Accra, Dome, Amasema and Nsawan were all nearing completion. By early 1910, the first locomotives and rolling stock had been brought in and the line unofficially opened to public traffic.⁹⁹

It was not long, however, before questions began to be asked. Murphy’s engineering expertise was severely tested during the rainy seasons of 1910 and 1911 when no less than three-quarters of the line was flooded. Most severely affected was the five-mile stretch through Achimota Forest, 10 miles from Accra.¹⁰⁰ In fact, the situation was so bad that the Colonial Office appointed an independent inspection engineer to examine the line and to make recommendations. His 1911 report censured the contractors for their shoddy work, particularly their practice of minimising labour costs by avoiding earthworks. Recommendations in the report included re-routing in order to cut out the sections of the line that lay in river beds and construction of more bridges with much heavier concrete foundations, as well as re-ballasting the entire line. These works were to be carried out by Murphy for an additional sum of £57,000, 30 per cent of the original contract.¹⁰¹ Despite the adverse report, Murphy was not made liable for the constructional deficiency. The work was finally completed in July 1912.

Once again, the problem of the most suitable railway construction method had arisen. But the very nature of colonial policy, authorising railway projects on a piecemeal basis only when justified by the finances of the colony, made the reversion to the departmental system necessary. This policy

would result in the construction of the entire 192-mile Accra–Kumasi line in a telescopic fashion, involving as many as five railheads.

The Mangoase–Koforidua–Tafo Extensions

Shortly after the construction of the railway had begun, both the colonial authorities and the mercantile community realised that any eastern line that fell short of the Koforidua and Begoro districts would fail to promote palm oil, rubber and cocoa cultivation in the region.¹⁰² This had become all the more urgent as farmers on the Krobo plantations, near Begoro, were reported to have started stockpiling their produce, especially palm kernels and cocoa, in anticipation of the arrival of railways.¹⁰³ Consequently, Rodger, an advocate of short latitudinal lines, was prepared to support the extension of the Accra–Mangoase line.

The demand for transport created by the cocoa industry was considerable. In 1915, the year the railways reached Koforidua, 41,000 tons of beans were transported by rail to Accra, of which 16,000 were loaded from the Koforidua station alone.¹⁰⁴ It was therefore not surprising that even before the Koforidua extension had been completed, a further 12-mile extension had been authorised from Koforidua to Tafo, another important cocoa-growing town. This extension was to be undertaken by E.W. Cozens-Hardy, a maintenance engineer on the open lines.¹⁰⁵ Shortly after construction of the extension had begun, the First World War broke out and the British Ministry of Munitions suspended the use of heavy metals in the civilian sector. As a result, all railway projects were suspended until the end of the war

The Mount Ejuamena Bauxite Deposits and the Proposed Tafo–Kumasi Extension

Early in 1917, E.A. Kitson, Director of Geological Survey, located large deposits of bauxite in the Ejuamena hills, midway between Tafo, the eastern railhead, and Kumasi, the northern terminal of the western system. Bauxite was strategically important as it was a major source of aluminium and Britain's regular supplies had come under threat from enemy submarines during the war, leading to severe metal shortages. The Ministry of Munitions ordered immediate tests on the samples and Kitson was instructed to

suspend all other duties in the colony and prepare a report on the prospects of working the ore.¹⁰⁶

Kitson's report (April 1917) focused on transport needs. As a short-term solution, the report suggested that road from Tafo to Kwahu could be upgraded to withstand heavy traffic. However, given the advantages of rail transport, it was also recommended that the eastern railway line be extended to Kumasi and a 3-mile aerial ropeway be established between the mine and the main line. Although the bauxite deposits were only 110 miles from Accra, Kitson suggested that the ore should be shipped via Kumasi to Sekondi, a distance of 206 miles, because of the poor lighterage facilities at Accra.¹⁰⁷ The Colonial Office accepted the report and the local administration was asked to take control of the deposits and build the line, though construction did not start until after the war.¹⁰⁸

The Development of Lighterage Ports

Once the Colonial Government had embarked on a railway construction policy that was primarily devised to stimulate production for metropolitan and world markets, it was bound to undertake simultaneous harbour developments. Unlike the West African colonies of Sierra Leone and Nigeria, the Gold Coast lacked a natural deep-water harbour where ships could berth alongside wharves for direct transshipment of traffic. Instead, goods had to be transported by surf boats to the ships, which anchored up to about 1 mile in the open roadstead.¹⁰⁹ Despite this, for two decades after the start of railway construction in the Gold Coast, neither the colonial administration nor expatriate commercial interests were willing to commit large-scale funds for a deep water port. The administration was unwilling because it had to guarantee that any project would be able to generate enough revenue to cover its capital cost and interest charges to the British creditors. Private capital interests were similarly reluctant, as they feared that any large-scale harbour scheme would increase taxation.¹¹⁰ Consequently, the authorities concentrated on the development of lighterage ports at Sekondi and Accra.

Work began at Sekondi in September 1898 when a temporary wooden jetty was erected to offload construction materials. Progress was extremely slow. By 1904, only 50 of the 750-foot iron jetty had been built, to the north of which a small platform was established where timber was stacked prior to shipment; £26,000 had been expended.¹¹¹ Such slow progress occurred at a time when the construction of the Sekondi–Tarkwa railway and its extension

to Kumasi had transformed Sekondi into a major point of entry for the whole of the Western Province, Ashanti and a large part of the Northern Territories. When large consignments of railway materials and rolling stock, as well as heavy machinery and stores for the mining companies, started pouring into Sekondi from 1901, it caused acute congestion. This delayed ships and also incurred onerous costs to human life and property. In one instance, during a heavy storm in April 1902, three of the four tugs belonging to the Sekondi Lighterage Company were lost; 'wrecks to lighters were frequent'.¹¹²

By 1907, the situation at Sekondi was so bad that the railways were forced to suspend carriage of timber logs to the port, as there was nowhere to offload the trucks.¹¹³ At this point, the local administration agreed to review the entire harbour plan and Mr Cooke, a harbour engineer, was sent to investigate the issue. Cooke's 1908 report recommended the immediate construction of the breakwater, the length of which was to be increased to 950 feet. In addition, four new jetties were to be constructed. The revised scheme was estimated to cost £150,000.¹¹⁴ Construction eventually began in 1911 when orders were delivered. By 1914, when the work was temporarily suspended due to the war, the breakwater was completed to 750 feet and two of the iron jetties had also been built.¹¹⁵

Unlike the improvement of lighterage facilities at Sekondi, which proceeded in an ad hoc fashion as and when justified by traffic, the local administration was committed to the early implementation of the Accra lighterage plan in its entirety, because it considered the longer-term traffic expectations in the Eastern Province from cocoa and palm oil to be more permanent and reliable than those of the western mining districts.¹¹⁶ Thus, even before the Accra–Mangoase rail route was surveyed, the government had agreed to appoint a resident manager to undertake the work. Construction started early in 1906 and by April 1909, the breakwater and the jetty had been completed.¹¹⁷ Work on the Mangoase line had only just begun.

Shortly after the Accra lighterage port opened, it became apparent that the breakwater was so defective that the new lighters could not use it even for landing rolling stock for the new railway. One problem was related to the method of laying the underwater structure. The obvious approach was to use professional divers to remove all sand deposits within the breakwater. This would enable the foundations to be laid directly onto the seabed. But instead, the less expensive 'pell-mell' technic was adopted. Under this system, the foundation blocks were placed on sand overlying the seabed and as the swell

gradually washed away the sand, the blocks were expected to settle. But the blocks were too light and instead the walls began to silt.¹¹⁸ Furthermore, the entrance of the breakwater was approximately at right-angles to the surf, with the result that sand accumulation in the protected water became an insurmountable problem.¹¹⁹ From 1911 onwards, sand had to be pumped out to maintain a minimum navigable depth of 5 feet. Additional pumping installations were ordered in 1914, but were not delivered until 1916 because of the war. When finally erected in 1917, the engines could not be used because of a shortage of coal. It was reported that the 'wharf and jetty are left high and dry owing to the heavy influx of sand'.¹²⁰ The entire harbour had become a sandbank on which traffic was loaded into surf boats. The situation was so bad, especially during the rough surf season between July and November, that 'on most days work has to be discontinued early in the afternoon owing to bad seas caused by strong winds'.¹²¹

In 1919, Messrs Stewart and McDonnell, construction engineers for the proposed Takoradi harbour, were asked to devise a new scheme for the Accra lighterage port. By that time, total expenditure on Accra had reached £294,000.¹²²

The Eastern Line and Port Developments in Context

In contrast to the western 'pioneer' line, the Accra–Tafo railway was primarily designed to serve indigenous and expatriate commercial and agrarian needs, though the strategic mining interests of wartime Britain would soon transform this line into another principal trunk route into Ashanti. Importantly, shoddy construction and technical defects in railway and port projects, which started with corrupt and fraudulent financial arrangements between Ashanti Goldfields and the consulting engineers on the Tarkwa–Kumasi extension (see previous chapter), had become a major feature of public infrastructure projects. In the case of the Accra lighterage port in particular, the construction deficiencies were causing severe bottlenecks, leading to greater focus on Sekondi as the main point of entry.



A Cocoa Tree bearing Fruit, 1925



*A constant menace to sections of the gold coast railway.
A wash-out in the Achemotah Valley*



A general view of Takoradi harbour



A Gold Coast Road.

A Gold Coast road, 1925



Cocoa bags on Accra beach ready for shipment.

Cocoa bags on Accra beach ready for shipment. 1925



CULVERT AT SACOOM (SHEWING WASHOUT) JULY 1911

Culvert at Sacoom, July 1911



Drift (Ford) under construction across the volta river at Otisu



Drying cocoa beans



UK Prime minister in Ghana, 1960

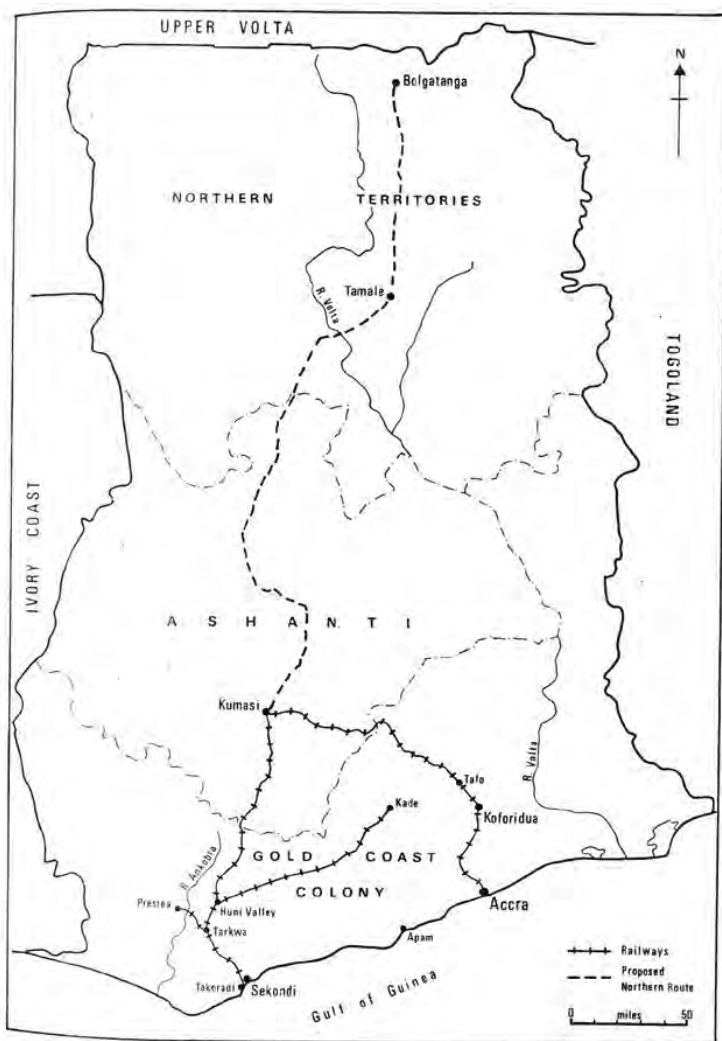


WORKS YARD, JULY 1911



WORKS YARD FROM OFFICE, DEC. 1911

Work yard, July 1911



Map 2 Gold Coast Railways and Proposed Northern Route, 1922

Chapter 4

Post-War Expansion – The Ten-Year Development Plan (1920–1930)

The post-war spike of relatively intensive infrastructural development marked a new phase in the history of British economic activity in the Gold Coast. The end of the war ushered in a decade of rehabilitation of the existing transportation network and, more importantly, the period was marked by long-term economic planning, in the form of the Guggisberg administration's ten-year development plan. The plan, which covered the period 1920–30, provided for a capital expenditure of £24.5 million for various public works. Two-thirds of this was earmarked for harbour and railway schemes.

In some respects, post-war expansion was the outcome of the unprecedented growth in the Gold Coast's external trade that followed two decades of railway building. However, the expansion must be placed in the context of the post-war reconstruction of the British metropolitan economy. In determining the kind of projects to undertake and where they were to be located, the colonial administration was guided primarily by the immediate needs of the British economy; the needs of the local economy were considered to be secondary.

Post-War Reconstruction in Britain and the Notion of 'Colonial Development'

The First World War exacerbated pre-existing problems in the British economy. At the end of hostilities, the colonies, especially in tropical Africa, were expected to assist the regeneration of British capitalism. From this, the notion of 'colonial development' emerged.

The war highlighted that the British economy, particularly its armament industry, was too dependent on sources outside the Empire for raw materials. This was realised early on, when the supply of manganese ore from the Caucasus was cut off just as shipments from Brazil and India were becoming increasingly difficult to obtain because of enemy action. As a result, there was such a shortage of ferro-manganese¹²³ that the Ministry of Munitions had to suspend the use of strategic metals in the civilian sector. To

provide a long-term solution to the problem, the British Government commissioned geological surveys throughout the Empire, especially in relatively unexplored tropical Africa. The aim was to establish Imperial control over the sources of strategic metals.¹²⁴

The war also undermined British commercial supremacy. Not only did the United States, Japan and other industrialised nations take over traditional British markets, but there was also a general trend after the war towards economic nationalism. This was marked in the non-colonial world by the rise of governments committed to protectionism and direct subsidies.¹²⁵ Moreover, during the war, the Imperial government had conceded considerable autonomy to the self-governing dominions of Australia, Canada and New Zealand, as well as India, over economic matters.¹²⁶ From then on, the Crown Colonies were viewed by some as vital to the British economy. Thus, the Empire Resources Development Committee suggested in 1917 that important colonial assets, such as West African palm production, should be operated as a state monopoly so that the profits could be used to clear Britain's national debt.¹²⁷ Leo Amery MP summarised the overall picture:

We are in fact, no longer the sort of country that can compete industrially in the open market, except in certain industries . . . It really comes to this that we can both carry out our social reform, and develop an immense trade but mainly, if not almost entirely within the Empire.¹²⁸

It was in this period, early in 1919, that Lord Milner was appointed Secretary of State for the Colonies. This appointment led to colonial policy in the 1920s being in the hands of men, including Amery, Jimmy Thomas and William Ormsby-Gore, whom Ian Drummond called 'Imperial Visionaries'.¹²⁹ Milner had always regarded the Crown Colonies as rich imperial estates awaiting systematic development. As early as 1913, he was castigating imperial financial policy in the colonies:

I suppose Colonial development is a question of money and though we are so much more liberal than we used to be, I do not think we are as yet anything like liberal enough in the conception of what is needed for the equipment of an underdeveloped country and in how much you must spend without immediate return if you are going to make a success in the long run.¹³⁰

As Secretary of State, Milner's immediate task was to popularise his long-cherished notion of liberal colonial economic development. 'Those people who terrify me are those who talk of a restriction of credit [to the Colonies]',¹³¹ he told the powerful Manchester Chamber of Commerce as he called for a much bolder policy of railway and other infrastructure investments. Speaking to Crown Colony officials at the Annual Corona Club dinner, Milner stressed that in the colonies, as in Britain, reconstruction should mean more than a return to pre-war conditions. Instead, attention should be given to public health and native education because demand for self-government was bound to accelerate.¹³²

Milner established a more effective Colonial Development Council to replace the moribund Empire Resources Development Committee. The Council was to undertake a systematic survey of economic potential throughout the Empire and submit its recommendations to the Colonial Office. In November 1919, the Council began to investigate the most pressing harbour and railway projects – the Ugandan Railway, the improvement of the Tanganyika system, the Trans-Zambesia railway to Lake Nyasa, the extension of Kilindiri harbour and the creation of the deep sea port at Takoradi.¹³³ The Colonial Office gave the Gold Coast a high level of priority and Sir Gordon Guggisberg, a Canadian-born Royal Engineer, was appointed Governor. Guggisberg was given the clear objective of 'creating a first class ocean port at Takoradi'.¹³⁴

Governor Guggisberg: The Ten-Year Development Plan and Takoradi Harbour

Guggisberg was no stranger to the colony. As a lieutenant in the Royal Engineers, he was seconded to the Colonial Office in 1901 and posted to the Gold Coast as an assistant director of the newly created Mines Survey Department. In 1906, he left to establish a new survey department and remained director until the end of his contract in 1908. Two years later, Guggisberg returned to West Africa as Director of Survey in Southern Nigeria and, for a few months in 1914, was director of the Gold Coast Public Works Department until recalled to the army for active service in Europe.¹³⁵ In Guggisberg, therefore, the Colonial Office found a West African 'specialist' capable of carrying out the post-war expansion programme.

One month after taking up duty in the colony, Guggisberg presented a ten-year development plan to the legislative council. In this plan, Guggisberg

outlined his development strategy for 1920–30. The plan was noted for its financial commitments, amounting to £24.5 million. Second, transport infrastructure, especially railway and harbour projects, continued to be accorded the highest priority, with two-thirds of the estimated expenditure earmarked for these works and the first four years (1920–24) devoted solely to them. Moreover, these projects would continue to be funded largely through loans raised on the London money market. Third, the plan provided for welfare projects in education, water supply, electricity and health, funded from surplus revenue raised in the colony. Finally, Guggisberg regarded the construction of a deep-water harbour at Takoradi as the starting point of his plan:

So profoundly convinced am I of the unlimited potentialities of the Colony if modern transportation facilities are provided that I unhesitatingly place the deep-water harbour at the head of my programme.¹³⁶

Despite his reforming zeal, few of Guggisberg's projects were implemented. The constraints that dictated colonial practice were soon felt and the Gold Coast fell short of target. Investment was relatively high, but was used mainly to create a deep-water harbour on the western seaboard at Takoradi and for the construction of a line through the central agricultural (mainly cocoa-producing) districts so as to divert traffic to the port. This element in the post-war transport strategy was the most disastrous of all the administrative undertakings, for hardly had the line opened when there was talk of abandoning it because of competition from road transport. By 1927, the entire ten-year plan had been abandoned. The authorities retreated to the aim of ensuring sufficient traffic for the existing transport network rather than extending the system.

The main impetus for the construction of a deep-water harbour, and the decision to locate it at Takoradi, came from two sources, based on the demands of the post-war British economy. The first and perhaps most important demand came from strategic metal interests, which wanted a harbour to serve the newly opened manganese mines at Nsuta, 33 miles from Sekondi and barely 3 miles from the main Sekondi–Kumasi railway. Although the government acquired the manganese deposits directly from the chiefs, the mining concession itself was granted to Edward Davies, whose company, Fanti Consolidated Mines Limited, had guaranteed the

construction of the Tarkwa–Prestea branch railway in 1908. Davies floated a new company, the African Manganese Company, which commenced operations at Nsuta in 1917. The immediate drive for the construction of Takoradi followed in 1918 when Davies submitted a programme of expansion to the Colonial Office. The programme meant that not only could the Nsuta mines meet the demands of the UK market, but they would earn foreign exchange too, which was crucial for Britain's post-war reconstruction. The Company had already won a contract for the sale of manganese ore to the United States at a minimum tonnage of 100,000 a year for the next five years. Davies, however, stressed that the programme's success depended on two factors: cheap railway tariffs and efficient, low-cost port facilities. He argued that the then current rates on ore delivered at Sekondi were ten times more than ore delivered at Bombay and that a deep-water harbour should be built at Takoradi without further delay.¹³⁷ Then, in January 1919, even before the Colonial Office had considered the proposal, Davies approached Rear Admiral John Parry 'to obtain an opinion as to the feasibility of constructing a deep water harbour on the coast in the vicinity of the [manganese] mines'.¹³⁸ Not surprisingly, when the Colonial Office eventually committed itself to the proposed harbour scheme by engaging Messrs Stewart and McDonnell (a Canadian firm of civil engineers) to draw up the plan, Parry was selected to head a team to conduct the necessary surveys. They would report to Messrs Stewart and McDonnell.

Like the centrally located integrated transport strategy advocated by Griffith and Lang three decades earlier, the surveyors suggested that the harbour should be sited at Apam. According to Parry, with an average of 200 miles of coastline and an average of 400 miles between the sea and northern borders, a centrally located deep-water port could serve 90 per cent of the total land surface as the focal point of entry for the colony, Ashanti and the Northern Territories.¹³⁹ The scheme would require the construction of a new rail route from Apam through the central agricultural regions to Kumasi and possibly to the north. Perhaps the most attractive aspect, from the point of view of the surveyors, was that a central port would serve the needs of the cocoa industry – the backbone of the Gold Coast's export and import trades – more effectively. But the weight of opinion created by the manganese lobby had had its effect and the location of the harbour had already been determined in the ten-year plan. The main task of the surveyors, Guggisberg stressed, was to concentrate on the hydrological survey of the Sekondi–Takoradi area to enable outline plans to be designed and costs

estimated. Not surprisingly, when Stewart and McDonnell published their report in 1920, they recommended Takoradi, emphasising its technical superiority over all other surf and lighterage ports.

The other reason for selecting Takoradi was the demand of British commercial interests for the promotion of new export crops in the Northern Territories in conjunction with Guggisberg's personal commitment to the economic development of the region. A preliminary survey for a railway line to the north had been conducted as early as 1900 in response to the mining boom of that time and the British Cotton Growing Association's ambition to promote cotton production in the territory. But serious consideration of the region's economic potential was deferred to the post-war years when a number of the expatriate firms, including Lever Brothers and later the United Africa Company, made representations to the government calling for the construction of a railway to open up the territory.¹⁴⁰ The main commodities of interest to British commerce and industry were cotton, groundnuts and shea butter. Guggisberg also appeared to have special empathy for the region and he believed that it had significant agricultural potential. Early in his administration he announced that:

the whole future of the Gold Coast is bound up with the development of the groundnut and shea-butter industries of the Northern Territories . . . With a railway there, and a deep-water harbour at the end of it, we should have 300 miles less of sea transport than [Northern] Nigeria to the markets of the world.¹⁴¹

As part of the programme, the 'pioneer' western line would be reconstructed to handle heavy traffic and, from the Kumasi railhead, an additional 250-mile track would be laid to Tamale. Takoradi was also intended to be the 'central terminal base of the [Gold Coast] Colony's railway system, and from this all railways were to be based'.¹⁴² The authorities envisaged that relatively cheap rail transport, together with more efficient harbour facilities, would divert some of the existing imports and exports trades of the central districts to the new port. The aim was to maximise use of the port and, it was hoped, the demands of the manganese mines, for low rates could be met through economy of scale. Nonetheless, during the formative years of the Guggisberg plan it was the traffic expectations from the Northern Territories, along with manganese ore, rather than existing traffic from the central cocoa-growing districts which were the more

important determining factors regarding the location and size of the proposed harbour.

Stewart and McDonnell designed Takoradi on a massive scale in order to meet anticipated demand. Takoradi, when completed, would cost £5 million and include a township and connecting railways and roads to Sekondi. The harbour itself would involve the construction of an artificially protected sea area about 1 mile long, containing tidal basins, piers, quays and ten berths comprising:

- two mail steamer berths;
- two general cargo berths;
- two manganese ore export berths;
- one coal berth;
- one timber export and building material import berth;
- one coastal branch boat service berth;
- one railway material and machinery unloading berth.¹⁴³

This was an ambitious scheme and it would make or break the post-war transport strategy.

Work started in 1921 and although it was scheduled to be completed by December 1924, by 1923 only the support services – construction workers' living quarters, a water supply, hospital and coastal railway line to connect Sekondi, as well as the construction of a granite quarry – had been completed. Work on the breakwater itself had only just begun. At this point, a three-month extension was granted. When, in January 1924, the completion date was again extended by one year to June 1926 and the estimated cost revised to £1.9 million, both the Colonial Office and Guggisberg agreed that an independent investigation was called for. In April 1924, Mr Palmer of Rendel, Palmer and Irriton, a Westminster harbour consultancy firm, visited the site. His report (September 1924) estimated that the harbour would now cost £2.5 million and suggested that the work be put out to contract. Following publication, Stewart and McDonnell withdrew and Rendel, Palmer and Irriton were appointed consulting engineers. The work itself was tendered and was won by Sir Robert McAlpine and Son.¹⁴⁴

As soon as McAlpine took over in September 1925, he proposed that by 'intensive working' he could finish the harbour ahead of schedule. A bonus system was agreed between the engineers and the Crown agents, whereby McAlpine would receive £1,500 for each week that the project was

completed before December 1930. The work continued apace so that, by April 1928, the harbour was opened, some twenty months early. However, almost as soon as the 'completion certificate' entitling McAlpine to the bonus been granted, it became apparent that a number of the cylinders on which the wharves rested were seriously defective, 'being filled with rubble instead of concrete, and cracking at water-level over a distance of 190 feet'.¹⁴⁵ Although a Colonial Office inquiry attributed the defects to 'hurried work' and 'sharp practice' on the part of the contractors, McAlpine did not forfeit the bonus. It took until December 1930 to rectify the defects at a final cost of £3.5 million.¹⁴⁶ Equally important, the failure of the authorities to implement the harbour scheme promptly and efficiently meant that attention was diverted from other elements in the transport industry.

Railways and Roads

The first railway project after the war was the reconstruction of the Sekondi–Kumasi 'pioneer' line, which was in a poor state of repair. This line, when extended to Kumasi, became the principal trunk route in the country. The heavy traffic that was carried could not cope with the steep gradients and sharp curves on a line that had been designed for light traffic. This hampered the speed of the trains and caused frequent derailments. More importantly however, it resulted in serious track maintenance problems. The situation was particularly acute between Sekondi and Nsuta. Consequently, in 1919 it was decided to reconstruct the entire 168-mile line and absorb the manganese station at Nsuta (previously connected by a 2½-mile branch line) into the new line. The reconstruction was also expected to meet the needs of the Northern Territories. By the time the work was completed to Kumasi in 1925, nearly £2 million had been spent.¹⁴⁷

The extension of the Accra railway from Tafo to Kumasi also gained the government's attention immediately after the war. As previously noted, the construction of this extension was intended to place the Ejuamena bauxite deposits on a rail route. A team of construction engineers arrived early in 1920. Although arrangements were made to carry out the work simultaneously from both the Tafo railhead and the Kumasi terminus, work could not begin on the Accra section until April 1921 because conditions at the port were so bad that construction materials could not be unloaded. Thereafter, work progressed from both directions until, on 3 September 1923, the stations at Bompata, Prahso and Akwadeso were opened, linking

the two lines.¹⁴⁸ A through railway communication from Accra via Kumasi to Sekondi 360 miles long had now been established.

The construction of the proposed railway from Kumasi to Tamale to open up the Northern Territories was the next important railway-building scheme. Although a survey conducted on the 250-mile route in 1922 had established the feasibility of the proposed northern line, it soon became evident that the scheme would not come to fruition.¹⁴⁹ The main reason was that the continued development of the colony and Ashanti was considered incompatible with the simultaneous development of the Northern Territories. As there were local labour shortages in the south, government public works, the mining companies and indigenous cocoa farmers alike had to turn to alternative sources for labour. The authorities concluded that the underdevelopment of the north would be a means of securing a cheap labour reserve. The decision not to proceed with the northern railway was taken in 1922. Guggisberg later wrote:

To encourage agricultural production in the Northern Territories by constructing a railway before the development of communications in the south would result in the greater part of this labour being lost. For the above reasons, I have deliberately sacrificed for the moment the development of the agricultural products of the North.¹⁵⁰

It is an irony that the abandonment of the line into the Northern Territories was agreed by the very Governor whose commitment to the development of the region had earned him the nickname 'faddist'. The decision had important repercussions for the general transport strategy.

The deep-water port at Takoradi was designed on a large scale, partly with a view to handling traffic from the north. Once the proposed railway to the north had been abandoned, attention switched to the alternative of a railway through the central cocoa-producing districts. The traffic conveyed to Takoradi would help make the port viable. Stewart and McDonnell now suggested that a central belt railway should be built parallel to and some distance back from the coast to connect with the western line.¹⁵¹ The proposal was taken seriously and £30,000 was allocated for a survey. The surveyors' 90-page report (early 1923) suggested that the proposed line should commence from Huni Valley, 53 miles north of the Sekondi–Kumasi line, run across the Central Province for a distance of 100 miles and connect the diamond mines at Kade. It would cost £1.6 million. The line would serve

an area of 5,582 square miles, with a population of nearly half a million. The main produce of the region, cocoa, amounted to 32,000 tons in 1921 although 22 per cent of this could not reach the market due to lack of transport. It was expected that this would rise to over 54,000 tons by 1930. The line would also revitalise the palm oil industry and encourage the production of kola and timber. The roads that served the area, the report confirmed, were of inferior quality, suitable only for light traffic. Besides, Guggisberg and the surveyors believed that lorry traffic could not operate profitably more than 30 miles from the coast. Finally, the proposed railway would earn £136,000 a year from goods traffic alone and, at a working cost of £63,000, would be profitable.¹⁵²

Despite this, there was strong opposition to the proposal. The West African Section of the London Chamber of Commerce objected on the grounds that lorry transport could be developed to serve the Central Province.¹⁵³ Indigenous opinion was also opposed to the project. Some of their spokesmen said the money should be spent on welfare services. Others feared that a central belt railway would destroy the commercial importance of the central coastal towns.¹⁵⁴ The Omanhene (chief) of Asin called for the line to be constructed to Cape Coast since his 'people have never been to Takoradi',¹⁵⁵ by which he meant that trade had never flowed from east to west. Despite this opposition, the Colonial Office gave approval for the construction of the Central Province railway in 1924 because 'the choice of this route for the railway would enable the maximum of product to be brought to the harbour and so reduce the charges to be imposed at the port'.¹⁵⁶

Even before approval was received, construction had begun in September 1923 with the clearing of forest and earthworks at Huni Valley. On the whole, the line experienced fewer construction problems than any of the previous railway and harbour works. No extensive rock cutting was needed and sufficient suitable ballast material was available along the route. Construction proceeded rapidly so that, by 1925, the 80-mile line was completed to Nsuaim (Oda). The only obstacle was a 260-foot bridge over the Birim River, the orders for which could not be delivered until May 1927 due to a coal strike in Britain. By August, the bridge had been erected, which enabled the permanent way materials to be laid on the remaining 18-mile section.¹⁵⁷ Fourteen stations were opened along the line, the principal one being at the Kade railhead where an extensive locomotive depot was constructed. Four miles of sidings were also laid there to connect the

diamond mines. The total cost, including locomotives and rolling stock, was £1.6 million – less than the original estimates by some £50,000.¹⁵⁸

However, no sooner had the line opened than it became apparent that the expectations of the railway, especially the belief in the general superiority of rail over motor transport, had been based on a gross underestimation of the potential of road transport. As the general manager of the railways reported in 1927:

At present time the traffic of the principal towns along the route . . . is carried by lorry at the rate of 1s per ton mile, the reduction in cost being due to better roads, cheaper petrol, better and more powerful lorry and better transport organisation of the motor transport companies.¹⁵⁹

Consequently, he concluded that the Central Province railway was ‘up against established competition’ and traffic would continue to be carried by lorry. It was now that the Colonial Office suspended the Guggisberg plan¹⁶⁰ and the Gold Coast’s basic railway network and associated ports and harbours were complete.

The post-war infrastructural expansion in the Gold Coast was a new phase in pressure from the UK for larger overseas markets and more reliable sources of raw materials, particularly strategic metals. Takoradi harbour and township developments can be regarded as something of a ‘cuckoo in the nest’, not only because of the substantial funding required, diverting revenues and resources away from alternatives, including possible railway and road construction in areas lacking modern transport, but also in the way it influenced further railway development. The authorities committed themselves to a harbour with such a large capacity that the whole focus of the Gold Coast’s imports and exports trades had to be shifted westwards. But the introduction of the motor lorry, a more flexible form of transport, threatened to undermine that policy even before it was up and running.

A recurrent problem was corrupt and fraudulent cost cutting on the part of the British engineering firms contracted to oversee and/or build the railways and ports. The belief that private individuals and companies contracted by developing country governments to undertake public works projects can commit corrupt and fraudulent practices with impunity can clearly be traced to some of these colonial practices.



Bridge building Kpando district council



Bus stop in front of the general post office



Cocoa Lorries starting out to bring Cocoa to the Railway.

Cocoa Lorries starting out to bring Cocoa to the Railway. 1925



Coffee bean harvesting



Sir Charles Arden-Clarke greeting chiefs in the North



Tar-metalling between Koforidua and Otrokpe.

Tar-metalling between Koforidua and Otrokpe. 1925



Ceremonial opening of Takoradi Harbour

Chapter 5

The Recruitment of Construction Workers and Colonial Labour Policy

Railway construction normally required a very large labour force, especially when, as in the Gold Coast, railways were being built in a taxing environment. The key demand was for an army of unskilled workers at all stages. During surveying, manual labourers were involved in cutting the forest to locate proposed routes; thereafter, even greater numbers were needed along the entire route to fell trees, uproot the tree stumps and clear the site. Construction itself involved excavating and moving large amounts of earth to level the ground. At a time when head-loading was the only means of transport, carriers were required to bring in rails, sleepers, timber and cement. The permanent way, when laid, had to be ballasted to prevent erosion and stabilise the track. This required quarrying boulders and stones by mechanical means or manually; the stone would then be crushed for ballasting. There were also rivers to be bridged, tunnels to be dug and workshops, offices and staff accommodation to be erected at the principal railway stations.

A smaller number of skilled and semi-skilled people were also needed – surveyors and draughtsmen to record the survey and to draw the relevant maps, engineers to design and supervise the work, and carpenters, masons, fitters, steel benders and platelayers to undertake construction. These workers were normally recruited from abroad while manual, unskilled labour was obtained locally. Recruiting unskilled local workers did, however, prove to be very challenging amidst a context of widespread slavery. Furthermore, local workers were not attracted to the jobs because wages were low and the tasks assigned to them were arduous, dirty and dangerous.¹⁶¹

Recruitment for the Sekondi–Kumasi Line, 1898–1903

When construction of the Sekondi–Tarkwa line began in 1898, the colonial administration simply advertised for labour in the local print media, which had been popular among the emerging educated elites since the nineteenth century. District commissioners were asked to recruit workers and give them three pence (3d) subsistence for each day of their journey to the

railway site. On arrival, the worker was to be allowed one day to construct a hut, while wages were to be paid at the rate of one shilling (1/-) a day for men and between 6d and 9d for boys and women 'depending on their value as workers'.¹⁶² These discriminatory wage levels were not only lower than the government's official rate of 1/3d but, more importantly, the mining companies continued to pay their own workers at the official rate. Clearly, the government was looking for a cheap labour force. Not surprisingly, the labour force did not materialise and by June 1899, there were only 600 labourers on site.¹⁶³

Exacerbating the unpopularity of railway work was the ill treatment of the labourers. Subcontractors, mainly white South Africans, Italians and Greeks, were engaged to undertake clearing, excavations and other petty contracts. Punishment by flogging and forfeiture of wages was common. As the consulting engineers reported, the excesses were so extreme that many labourers walked out and 'the railway project as a whole got a bad name amongst the natives'.¹⁶⁴

Significantly, the subcontractors were the first to complain to the authorities about the labour shortage. They wanted permission to recruit labour themselves, if necessary by force. The administration, however, was dubious about their demand and argued that the unpopularity of rail work was a direct result of the workers' ill-treatment. In December 1899, when there was still no sign of the labour supply improving, the entire European construction staff went on strike and demanded that the government intervene.¹⁶⁵

The immediate official response can be explained by racial prejudice that existed at the time. Africans were said to be lazy or reluctant to work. 'The Fanti and other tribes', the resident engineer reported, 'were indolent, slow, and possessed but little energy',¹⁶⁶ adding that nothing short of large-scale importation of labour from China or India would ensure the success of the railways. The case for indentured labour from the East was not new; in 1897 Governor Maxwell had stated that 'no real progress will be made in the development of this Colony, until a more energetic race than that which now inhabits it is at work here'.¹⁶⁷ Although Maxwell secured Colonial Office approval for the importation of 800 indentured workers from the Malay Straits settlement, the scheme was dropped because of the lack of a regular steamship service between West Africa and the East.

The failure of the railways to attract labour, together with the authorisation of an additional 124 miles from Tarkwa to Kumasi, meant that

official interest in Chinese labour revived. Thus, after visiting the construction site in January 1900, Acting Governor Hodgson asked the Colonial Office to reconsider the proposal to import Chinese coolies. This was turned down by the Crown agents on the grounds that Chinese workers were as susceptible to tropical diseases as Europeans.¹⁶⁸

In the absence of Chinese labour, the Colonial Government turned to the traditional chiefs as agents for the recruitment of indigenous labour. Since the establishment of colonial rule in the 1870s, the authorities had increasingly relied on the traditional rulers to supply their labour needs. Administrative and trade roads, for example, were constructed by communal labour in return for which the chiefs were paid stipends. The earliest attempts to recruit railway labour through the chiefs appear, however, to have been confined to the south-east of the colony. In February 1900, Nathan launched the recruitment scheme by personally appealing to the kings of Krobo, Akwapim and Accra.¹⁶⁹ From then on, circulars were sent to all district commissioners authorising them to pay the chiefs 5/- for each worker they supplied¹⁷⁰ and a special travelling commissioner was appointed to the Eastern Province to oversee recruitment.¹⁷¹ The authorities were prepared to tolerate some coercion. One official suggested that a circular would produce limited response and that specific quotas should be given to each district commissioner on the basis of population. Cape Coast, the headquarters of the Transport Department, which recruited carriers for government stores, was to be exempted.¹⁷²

It soon became evident that this source of supply was still far from adequate. By the end of 1901, only 1,995 of the estimated 4,000 target had been realised:

Chief Ababio of Accra	972
King Tackie of Accra	360
Lt. F.B. Henderson, D.C.	315
Volta	322
D.C. Keta	20
D.C. Ada	6
Chief Vanderpuye, Accra	
Total	1,995 ¹⁷³

These workers, who were mainly recruited along the coastal strip, were consequently first sent to the nearest coastal district offices at Keta, Ada and Accra, where they entered into indentured service. This included a six-month

contract, for which the chiefs were paid 5/- for each labourer supplied and a promise of a further 5/- for each worker who stayed on for an extra six months. The workers themselves were organised into gangs of 20–30, each group consisting of people from the same village or supplied by the same chief. The chiefs appointed their own headmen for the gangs who were responsible for discipline, and these were promised between 1/6d and 2/6d day 'depending on good work'.¹⁷⁴ From the coastal district offices, the labourers were despatched by sea to Sekondi, from where they walked to the construction sites.

Construction of the Sekondi–Tarkwa line progressed slowly. Two and a half years after construction had commenced, only 25 miles of line had been constructed. By then, the proposed extension to Kumasi meant that the government was compelled to look to the other West African colonies for labour. A rudimentary wage labour force had existed in all the West African coastal towns since the mid-nineteenth century. Whereas relatively intense economic activity, especially in mining and cocoa farming, had led to labour shortages in the Gold Coast, labour was plentiful in Sierra Leone and Lagos, partly because, by 1901, both colonies had completed the first sections of their own railway projects. In the case of Lagos, where the authorities relied on redeemed slaves for railway construction, these workers must have made their way into the labour market. In June 1901, the Crown agents appointed Christopher Hill, a railway engineer, as special recruitment agent, to be stationed at Lagos for six months. Although the Lagos administration was to procure the workers, Hill was responsible for their registration and transport to the Gold Coast. Each worker entered into an indentured contract for one year plus return passage. The Lagos administration charged £1 for each worker recruited.¹⁷⁵

A similar approach to the Sierra Leone administration was initially rebuffed. It was argued that recruitment would adversely affect the recently instituted Hut Tax, the success of which depended on palm oil and rice production.¹⁷⁶ It was only with the intervention of the Secretary of State, Joseph Chamberlain, that the Sierra Leonean authorities agreed to supply 1,000 workers.¹⁷⁷ Along the Kruu coast of Liberia, which lay outside the British sphere of influence, a private German shipping firm, Walchers-Helm, was also commissioned to recruit workers for the railways.¹⁷⁸

These efforts, together with the collapse of Ashanti resistance, brought about a dramatic change in the labour situation. In December 1901, there were 4,500 workers on the project. By March 1902, the figure had reached

8,584 and in May, it peaked at 16,000.¹⁷⁹ A significant feature of labour on the Sekondi–Tarkwa–Kumasi line was the use of indentured workers. Of the 16,000 workers on the project in May 1902, as many as 11,626 (72 per cent) were indentured for periods of between six and twelve months. They included 7,000 from Lagos, 1,000 from Sierra Leone, 271 from Liberia and 3,355 from the Gold Coast, recruited mainly from the south-eastern districts. The rest were volunteers who were recruited mainly from the vicinity of the railways. All forms of recruitment now produced more workers, though the main group comprised immigrants from Lagos.

However, the labour force was far from stable. There was a rapid turnover due to frequent desertions, mainly among the Gold Coast workers. Thus the chief accountant reported that ‘it is always difficult to state the exact number of men at work as there is always considerable fluctuation going on’.¹⁸⁰ The Accra and Ketta ‘boys’ proved the most difficult to control. They were given an advance of 20/- (later changed to a ‘gratuity’ of 7/6d) on arrival, but, in many cases the workers either changed their names or simply disappeared from the work and ‘scarcely 10 per cent of them carry out the term of their contracts’.¹⁸¹

The Ashanti uprisings, particularly between 1899 and 1901, were partly responsible for the high labour turnover, as railway workers were drafted from time to time as carriers for the troops. That aside, the poor conditions of railway work appear to have been the main stumbling block. Wages were very low. In fact, the Accra chiefs told Nathan that their people were unwilling to travel so far from home only to be paid 1/- a day, which was less than the market rate.¹⁸² But rather than raise wages, the government opted to bribe the chiefs by offering them ‘head money’ for each worker supplied, an offer which some accepted all too gladly.

Some workers resented the system of deferred payment. Other than monthly rations, wages were not paid until the end of the contract and gangs were collectively penalised by forfeiture of all wages if a single gang member deserted.¹⁸³ All these control measures were designed to create a stable workforce, but in reality they only exacerbated the already deplorable situation and made work on the railways even less attractive.

Recruitment for Railways and Lighterage Ports, 1905–1918

The period from 1905 to 1918 was easier for recruiting manual workers for railway and port construction. As soon as Murphy was awarded the 40-mile Accra–Mangoase contract in 1908, he approached the government for 300 men from the Northern Territories. By April 1909, 400 workers, indentured for 12 months, had arrived.¹⁸⁴ Nevertheless, voluntary rather than indentured workers made up the majority of the labour force. Of the 3,000 labourers on the Accra–Mangoase section in June 1909, only 360 (12 per cent) were indentured from the Northern Territories, the rest were voluntary workers.¹⁸⁵ A ‘market’ response to railway labour opportunities was perhaps most pronounced on this section. Here, construction was undertaken by a private contractor who seemed more sensitive to market conditions than was the government. Higher wages (1/3d–1/6d) than the official rate were offered for voluntary labour, though recruits from the north received the official rate of 1/-.¹⁸⁶ This project thus experienced few labour problems. Throughout construction many migrants, especially from Togoland, were regularly intercepted near Accra and employed for the railways.¹⁸⁷ Although these migrants, particularly from the German side of the border, were said to have been escaping from forced labour or in search of work to pay taxes, the obvious financial incentives on the railways accounted for the success of labour recruitment. This is in stark contrast to the northern indentured workers, of whom, only 400 of those recruited in 1908 were said to have completed their contracts.¹⁸⁸ These workers, in reality ‘conscripts’, were employed alongside southern voluntary labourers who were paid at a higher rate and by the day, whereas the northern workers were merely fed and received their wages on their return home.

On the 25-mile Mangoase–Tafo extension (1912–15), labour supply continued to favour the railway. When the work started under Mr Cozens-Hardy, labour was simply transferred from the previous section to the new project so that ‘there is no demand for organised recruitment of labour’.¹⁸⁹ At the same time, the development of lighterage ports at Accra and Sekondi was undertaken mainly in an ad hoc fashion with the result that the need for a very large labour force never arose. In 1909, only 230 labourers were employed on the Accra harbour works, with another 350 at Sekondi. None of those employed were indentured.¹⁹⁰ Thus, by the time railway and port construction work was suspended in 1914, indentured labour no longer constituted a significant proportion of the workforce. As the Governor

reported, 'many workers now find railway construction best suited to their convenience or inclination'.¹⁹¹

A regional division of wage labour had emerged; northern contract workers were channelled mainly into the mines, while southern voluntary labourers were employed on the railways. How far this regional division, particularly the emerging 'free' labour market in the south, could survive the post-war economic reconstruction is the issue to which we now turn.

The Post-War Labour Problems

The end of the war marked not only the restoration of the existing railway system but also a general economic expansion, with the result that the question of labour once again came into sharp focus in official discussions. When Governor Guggisberg introduced his ten-year development plan in 1919, he estimated that 27,000 workers would be required immediately for public works alone.¹⁹² Reports from the railway projects already underway, however, were grim. On the Sekondi–Kumasi realignment, it was reported that 'local labour could not be induced to take up the work on any terms at all' and the engineers were unable to start work on the Tafo–Kumasi extension because no more than 150 labourers were available.¹⁹³ At a time of expansion, there was an imminent labour crisis.

The influenza epidemic of 1918, which claimed more than 100,000 lives in the colony, Ashanti and the Northern Territories,¹⁹⁴ partly accounts for the labour shortage. But competition from cocoa farming was also to blame. The rapid expansion of cocoa cultivation, together with high world market prices, enabled cocoa farmers to outbid the government and the mining companies in the labour market. Guggisberg later admitted that some cocoa labourers were earning up to 10/- a day plus food and accommodation, while the official rate remained pegged at 1/3d.¹⁹⁵ The problem was further complicated by the shortage of coinage as a result of the conversion of the Royal Mint in the UK to armament production during the war. Although bank notes were issued throughout the war, they were unpopular among Africans because they were harder to look after, especially from termite and cockroach damage. With the renewed availability of coins after the war, notes were abandoned in favour of a gradual redemption of all paper money at a discount. Both the government and mining firms disposed of their reserve notes through the payment of wages and labourers were left to change these notes for coins from brokers at between 50 and 75 per cent of their face

value.¹⁹⁶ At the same time, cocoa farmers, who had avoided paper money, had large reserves of silver coins with which they paid their labourers.

How did the authorities respond? First, they reasserted the powers of the chiefs in the mobilisation of labour. In November 1919, the Governor called a conference of public work officials at which he announced fresh proposals for labour recruitment. Of the 27,000 workers required, 13,000 were to be provided by the colony and Ashanti through unpaid communal labour since 'the railway projects will benefit them most'.¹⁹⁷ Communal labour was nothing new. What was new was that, for the first time, the system was being used for railway construction. Presumably, it was considered that a few days' unpaid work could be fitted into an individual's routine of subsistence farming and/or cash-cropping of cocoa. The scheme had the added attraction of not requiring work camps or rations.

In the Northern Territories and the Volta, including the newly acquired mandated districts, the government remained committed to control of the labour market. Attempts by the mines to recruit indentured workers directly from these regions were refused. There was widespread concern about the high number of fatalities in the mines and the government seized on this to counter the demands of the mining companies for freedom to recruit.¹⁹⁸

As there was no professional labour recruiting agency, the Governor proposed establishing a Central Labour Bureau, which would coordinate all recruiting activities. At the provincial and local levels, the chiefs, district commissioners and Public Works Department officials would form subcommittees to which applicants would direct their requests. The functions of these subcommittees were to:

- organise systematic propaganda campaigns to explain the importance of government works to the country;
- obtain information regarding the number of labourers each chief could obtain for work within and outside their jurisdiction;
- ensure that markets for the sale of foodstuffs to workers were provided;
- determine the length of engagement for each gang and to inspect the living conditions in all work camps.¹⁹⁹

Despite these arrangements, the scheme floundered. Mobilisation of labour for work on the railways and harbours was conditioned by the availability of alternative, more lucrative forms of employment and how well

the chiefs were able to influence their subjects. Because of the availability of mining and cocoa work, it became virtually impossible for the chiefs to recruit labour in the western districts to work on the Sekondi–Kumasi reconstruction ‘and those recruited and put to work deserted after a few days . . . practically all the work had to be carried out by [northern] indentured labour’.²⁰⁰

Although communal labour was used more widely on the Tafo–Kumasi extension, it met with limited success. Despite the appointment of a special travelling commissioner to oversee recruitment in Ashanti, by 1922 the scheme succeeded in producing no more than an average of 450 workers a day ‘who showed little aptitude for labour on construction’.²⁰¹ They were described as being ‘mostly local and very poor quality . . . being available during the non-farming season, whilst scarce at the cocoa season’.²⁰² Ashanti’s entry into large-scale cocoa production at this time partly explains the failure of the communal labour system.

The chiefs in the colony and Ashanti generally found themselves losing control over their subjects. This was caused not only by the number of people entering the cash economy but also by the democracy inherent in African political institutions. Although the chiefs in the southern Gold Coast were mainly hereditary, they could be deposed by the ‘commoners’, who had a defined role in the political process.²⁰³ As Jarle Simensen points out, the growth of the Asafos (to which the commoners belonged) from 1913 onwards resulted in ‘the loss of prestige for Chiefs’.²⁰⁴ As a consequence of the Asafos’ power to initiate de-stoolment (removal from office), no chief could risk forcing his people to enlist for unpopular government work.

In 1920, the District Commissioner of Ada reported that no chief was willing to cooperate because of the political crisis – there was no permanent chief and the acting chief was disliked. The people were in the process of selecting a new chief and the sub-chiefs were reluctant to associate themselves with the new labour policy.²⁰⁵ In the Kwahu districts, through which the Tafo–Kumasi extension passed, recruitment for the railways had resulted in open conflict between the Asafos and the Paramount chiefs. As a Kwahu correspondent of the *Gold Coast Leader* newspaper reported, ‘all the permanent Chiefs hold their posts mechanically, fearing the populace, and expecting de-stoolment, so that aristocracy is giving way to democracy’.²⁰⁶

In the districts where the Asafos were weak, the chiefs were more successful. In Akyem Abuakwa, Sir Nana Ofori Attah (also a member of the legislative council) promised 3,000 men on average a day and, within a

month, had already supplied 1,000.²⁰⁷ Although there had been an attempt to de-stool him in 1918, this was foiled²⁰⁸ leaving the movement demoralised. In short, the spread of the cash economy in the south, together with the growth of mass political consciousness, seemed to have tipped the balance of power away from the chiefs. Their leadership role, at least in the mobilisation of labour, was to be superseded by the new African educated elite.

The recruitment of workers for the construction of the Takoradi harbour labour force presented different problems. Unlike railways, the harbour project was located in one place and it was therefore not feasible to adopt the communal labour system. Instead, construction depended on wage and indentured labour. Although 7,000 unskilled labourers were originally earmarked for the scheme, the scaling-down of the project, together with the introduction of labour-saving machinery, meant that only an average of 5,000 workers would be required.²⁰⁹ Despite this, hardly more than half that number was available at one time.²¹⁰ It was partly the difficulty of obtaining labour for the Takoradi project that led Guggisberg to abandon the idea of a railway link to the north.

Table 5.1 shows the regional breakdown of the labour force on the Takoradi harbour works in March 1923.

Table 5.1 Takoradi Harbour Works, Labour Returns, March 1923

Source of Labour	Unskilled	Indentured as per cent of unskilled labour	Skilled
'Foreign' Colony and Ashanti Northern Territories	910	89 per cent	111
	1,158*		
	840	54 per cent	761
Total		96 per cent	60
	2,908	77 per cent	932

*Includes large numbers of children and women.

It is clear that the majority of unskilled workers at Takoradi were indentured – 54 per cent of workers recruited from the colony and Ashanti, 89 per cent of the ‘foreign’ recruits and as much as 96 per cent of those from the Northern Territories. But despite the relatively low level of indentured workers from the colony and Ashanti, the pattern shows a significant reversal of the pre-war trend towards a growing free labour market in the south. Thus, renewed government intervention in the labour market after the war seems to have had a negative impact on the voluntary labour employed on public work projects.

The final project to be undertaken during the 1920s was the construction of the Central Province line. Here too novel labour arrangements were adopted. In the aftermath of the unsuccessful communal labour experiment on the Tafo–Kumasi extension, the authorities turned to indigenous African capitalists, or would-be capitalists, for the recruitment and supervision of labour. Under the new scheme, known as the contract system, Africans who were literate, who had long experience of work on the railways and who were able to raise a gang of 20–30 workers, were awarded contracts.²¹¹

The railways had used the petty contract system since 1898 but only for minor works such as clearing the excavation site. The amount of individual contracts for Africans ranged from £1 to £30.²¹² What was new about the contract system now was that, other than the construction of the bridge over the Birim River which was awarded to a British subcontractor, all the major works on the central line – station building, turntables, plate-laying and ballasting – were awarded to African contractors on a piecemeal basis. Thus, the system shifted responsibility for recruiting labour from the chiefs to the new African elite, who turned largely to the Northern Territories for recruitment, ‘with a small percentage of voluntary labour coming from Nigeria’.²¹³ The new method was said to have been so successful that it resulted in a 20 per cent reduction in the estimated cost of earthworks. However, since there are no statistics on the composition of the labour force on the Central Province railway, the precise role of this arrangement is uncertain.

The demand for railway and harbour construction labour amounted to a major ‘shock’ to African communities with virtually no previous experience of industrial labour. Railway construction, by its nature, required casual workers. People worked only for short periods and then returned to their village. Railway construction therefore did not create a wage-earning labour force or proletariat. But the experience of railway construction work may have been for some a step towards wage employment outside the agricultural sector, as construction workers may subsequently have taken up employment with the mining companies or import–export firms. All the construction skills had to be imported because the railway technology was developed, planned and introduced wholesale from Britain. Thus, the tasks performed by Africans were basic – carrying, felling trees, excavation, to name a few – which were scarcely different from their duties at home. Any technical transfer from railway construction would likely have been at a relatively low level. But again, one cannot be certain that workers did not add to their

technical skills. Using new tools and materials, for example, may have widened some workers' horizons. Some construction workers also became small-scale independent contractors.

Chapter 6

The Acquisition of Railway and Harbour Land and Colonial Land Policy

General Problems of Land Acquisition in Railway Construction

As transport agents, railways operate over very long distances and affect property values on a wide front. This makes the acquisition of land more contentious than for other industrial or agricultural enterprises. The construction of permanent ways, requiring strips of land about 20 yards wide over hundreds of miles, brings in its wake disruption to virgin land, forests, farms, waterways and townships. At principal railway stations and harbour sites, especially those scheduled to be built in residential areas, the space needed for the construction of stations, warehouses, depots, workshops, sidings and marshalling yards involves even more disruption, including to community life. On the other hand, by lowering transportation costs, railways and harbours generally add to the value of land and property.

In Britain, where railway projects sometimes experienced long delays, Parliament intervened by granting statutory powers to railway companies to acquire any property that lay on their chosen routes by compulsory purchase. The law, which also provided for the acquisition of a strip of land on either side of the track (the 'Limits of Deviation'), gave the railway companies more land than they needed. This could later be sold, thereby recouping some of their promotional expenditure.²¹⁴ In the United States, the government intervened through the Land Grant system, under which railway companies were allocated large tracts of land along their routes. This made the companies not only transport agents, but also significant owners of land, most of which was exempt from taxation.²¹⁵ In addition to guaranteeing easy access for construction, the land grants provided ready credit to the railway companies during the gestation periods of the projects. 'Most railroads obtaining grants', Stover noted, 'mortgaged their land long before they completed final certification with the government, obtained the patents to their land, or sold it on long term credit to settlers.'²¹⁶

In colonial Africa, the question of land titles was just as important for railway construction. Land, Edmund Morel observed, 'was the key problem to European rules in tropical Africa'.²¹⁷ Morel identified two options facing

the British administration: either it could dispossess Africans of their lands in the interest of European capitalism or preserve African land rights, which would increase the Africans' productive capacity. In East and Central Africa, where the British pursued the first option by declaring Crown rights over the most fertile and arable regions,²¹⁸ railways, whether state-constructed or privately owned, were simply pushed through so-called public land. This minimised opposition to railway construction from landed interests. Moreover, as they wanted to encourage white settlements, the colonial governments allocated large tracts of land alongside the railways to Europeans for large-scale commercial enterprises, which in turn provided incentives for railway investment.

In West Africa, the situation was radically different. Here, the inability of the British authorities to draw up well-defined land laws, especially the failure to distinguish between public and private land, meant that railways on the Gold Coast, and indeed in the whole of British West Africa, could not be built by allocating public land to railways companies. Further, government could not assign large areas of public land alongside railways to new enterprises as was the policy adopted in East and Central Africa. This was the Gold Coast's land acquisition problem.

The Gold Coast Land Act 1876 and the Railways

One of the first pieces of legislation passed by the British Parliament after the proclamation of colonial rule over the Gold Coast Colony in the 1870s related to the acquisition of land for public works. Under the Public Lands Act 1876, the Colonial Government was empowered to acquire any land, whether occupied or unoccupied, for public use. Article 6 provided that compensation should be paid only for occupied or developed land (property holdings), while 'waste' or unoccupied land was to be appropriated free of charge. It also provided that any land acquired under the Act which remained unutilised for a period of ten years, either because the proposed project for which it was originally acquired had fallen through or because land became superfluous on the completion of the project, should revert to its original owner, subject to the approval of the Governor.²¹⁹

In the late 1870s, the new administration acquired several plots of land, notably in the immediate vicinity of the coastal castles and forts, for the erection of public buildings to meet the needs of its expanding civil and military establishment. When Fitzgerald and Mercer submitted their

application for a railway concession in 1879, in which they requested land grants under the Act, the Colonial Secretary, Sir Michael Hicks, refused because 'the Act referred to Government and not private enterprise'.²²⁰ These were, of course, the years when officials anticipated the enactment of legislation, which it was hoped would satisfy the demands of the private sector. They were mistaken. Successive attempts in the 1890s failed to establish government control over land designated as unoccupied. Officials now began to perceive the Public Lands Act as a means of achieving some of their abortive land reform proposals by the back door. It might permit the establishment of government control over large tracts of land, some of which would eventually be allocated to private enterprise. The acquisition of land for railway construction from the late 1890s provided the ideal opportunity for such a ploy.

By January 1898, the publication of the consulting engineer's report had resulted in the Colonial Office's decision to construct the pioneer line from Sekondi to Tarkwa mining districts. At the same time, the Gold Coast legislative council passed Railway Ordinance No. 7 of 1898, which provided for the acquisition of land for railway construction under the 1876 Land Act. The mechanism was straightforward. The Colonial Government passed an Ordinance authorising railway engineers and surveyors to enter the land to prepare the plans and maps, which were then publicised in the *Government Gazettes*. Claims for compensation had to be submitted within twenty-one days, after which the land automatically became the property of the government. In this way, land acquisition or the settlement of claims for compensation would not delay the start of work on proposed railway schemes:

Whether or not any dispute or doubt shall arise as to the ownership of or compensation properly payable for such lands it shall be lawful for the Government through its servants to enter upon such lands 21 days after the service of such notice, and pending the decision of the courts, to deal with all such lands in all respects as if they had been conveyed to and became vested in the Colonial Secretary in trust for Her Majesty.²²¹

The sweeping powers bestowed on the government by the Ordinance were too blatant to be ignored, especially at a time when attempts at land reforms were being frustrated. The Crown agents were the first to suggest that a half-mile strip of land on each side of the proposed track should be

acquired with a view to leasing it to mining, timber and plantation concession holders.²²² The Secretary of State seized on this idea but proposed that the strips should be doubled in width to 1 mile. He also stressed that large acquisitions should be made in the vicinity of main stations along the route, part of which would be leased for commercial and residential purposes.²²³ Financial ends rather than control over land was the aim, for by now, it had become evident that Chamberlain's efforts to secure financial assistance for the railways had met with limited success and the Colonial Office was looking for alternative sources, including assistance from the mining companies (see Chapter 7). Revenue generated by surplus railway land allocated to private companies would help make the lines pay for themselves.

However, officials knew immediately that that was unrealistic. In January 1899, Acting Governor Hodgson wrote at length to the Colonial Office summarising the disadvantages of Chamberlain's proposal:

- He anticipated African opposition, especially from the Aborigines Rights Protection Society.
- The policy would play into the hands of the Ashanti resistance movement.
- Most of the territory between Sekondi and Tarkwa had already been placed under notice of concession to expatriate business interests; any large-scale acquisition of land would incur onerous compensation payments to these companies.²²⁴

Consequently, a uniform width of 66 feet (which could be increased to accommodate large cuttings and banks) was eventually acquired (1898–1903)²²⁵ – hardly more than the bare minimum needed for the construction of tracks. Chamberlain's proposal had been abandoned.

By the time the network had been completed in the 1920s, the strips of land acquired for the railway lines had assumed a peculiar shape explained largely by the level of economic activity in different parts of the country. Thus, the Sekondi–Kumasi line, which passed through the centre of the mining regions, had the least alienation (a uniform 66 feet). This was followed by the 18-mile Tarkwa–Prestea branch line, which had between 150 and 300 feet on either side of the track. The Accra–Mangoase–Kumasi line had widths varying from 200 feet to 800 feet on both sides of the track, while the Central Province line had an average width of 400 feet on both sides of

the track. In this way, the government had secured land for the permanent way with minimum resistance.

In Ashanti, things were different. Here, government title to land for railway construction was uncertain because the 1876 Land Act applied to the colony alone. As Ashanti was conquered by force, the Colonial Government simply seized the land it needed. This was a matter of concern, as Governor Nathan had stated that the chiefs 'should be told that the King's Orders do not interfere with the rights in land nor with any other rights of the Chiefs and people so long as they do not work against the Government'.²²⁶ Hence, no sooner had the railways been completed than Ashanti chiefs began to lay claim to land adjoining the track, land which the government claimed as its own but for which it had no proof of ownership. In 1908, the Chief Commissioner of Ashanti was asked to look into the matter. His report revealed the weakness of the government's position. His conclusion that 'it would possibly now be inadvisable to reopen the question of title'²²⁷ meant that issue was shelved.

Land titles in Ashanti proved to be a recurrent problem. In 1916, the chief of Bekwai brought action against the Railway Department for excavating ballast material from his land adjoining the railway track. On that occasion, the Department paid compensation and the case was discontinued. But the issue embarrassed the government, prompting Governor Sir Hugh Clifford to declare in 1918, 'I also want the position of the Government with regard to land in Ashanti to be defined as clearly as possible.'²²⁸ Nothing, it seems, came of this. When in 1924 John Maxwell, the new Commissioner of Ashanti, raised the matter again, it was decided to leave things as they were because it was feared that 'any inquiry into these questions may raise further questions'.²²⁹ It is therefore not surprising that there is no information on government ownership of land in Ashanti available.

The 1876 Land Act and Commercial Developments

Although the colonial administration had generally rejected using the 1876 Act to acquire large tracts of land adjacent to the railways for private purposes, when it came to the immediate developmental needs of the railways, officials recognised that some alienation to private needs was necessary. This would benefit commercial developments at stations and harbour sites which had become the focal points for urban development.

Consequently, they were prepared to lease land acquired for public works to private interests.

Sekondi, the site for the proposed lighterage port and the railway terminal, was the first to be acquired. Since Sekondi was only 'a small fishing village consisting of a few mud houses'²³⁰, it might be assumed that acquisition would be easy. But even here there were problems. As soon as the site was selected, European mining and trading firms scrambled to acquire plots in the village.²³¹ Instead of the government acquiring the whole area in one transaction, it had to be taken over gradually in bits and pieces to avoid expatriate concessions.²³² By August 1898, 53 plots of varying sizes had been acquired and a 5,000 square yard plan had been drawn up for the railway station and the lighterage harbour.²³³

At Tarkwa, an area half a mile by one quarter of a mile, carefully marked out to exclude properties owned by the mining companies, was acquired by 1899.²³⁴ At Kumasi, the Governor simply declared that the mile of land surrounding the British fort was the property of the government. Part of this land was allocated to the railways for station facilities.²³⁵ In other railway stations in Ashanti, land acquisition followed the same pattern. Because these acquisitions were not backed by law, no information on them was gathered.

Railway stations were normally located on the outskirts of towns and villages along the routes, as the permanent way itself was pushed through the fringes of settlements in order to minimise disruption to property. New townships sprung up where the railway stations were sited. Immediately adjoining the platforms were the 'Merchants Plots' – land allocated for commercial and trading purposes. Beyond these were government buildings and European residences. In all these townships, land values rose rapidly. In 1902, the highest ground rent per acre of land in the country, at Tarkwa, was £24. By 1921, an acre of land cost £60 at the new Kumasi railway station, while at Accra it cost as much as £86 per annum.²³⁶

As land values rose, so did African landowners' demands for a share in the proceeds. Although the government had ignored them, the Stool of Sekondi was remarkable for its perseverance. Ever since Nketsia II petitioned the government in 1898 against the denial of compensation for land acquired at Sekondi, his successors had raised the issue every year until court action against the government was threatened in 1919. The reaction at the Government Secretariat was highly conciliatory, one official suggesting 'a payment of a lump sum to silence the Stool'. The administration accordingly awarded a grant of £1,000 'as an act of grace made solely in consideration of

the past services rendered to the Government by the Stool'.²³⁷ This reveals the government's weakness in allocating land acquired ostensibly for railways to private enterprise. Conflicts would peak during the construction of Takoradi harbour and new township in the 1920s.

The Problems of Land Acquisition at Takoradi

As soon as the decision had been made to locate the harbour at Takoradi, the government began to acquire land for the works. Thus in January 1920, the Secretary for Native Affairs held a meeting with the chiefs of Takoradi, Amanful and Sekondi who owned the land. It was agreed that the land required for the harbour and related government services would be provided free of charge; but compensation would be paid for property, mainly buildings at Takoradi and Amanful villages and farms. The government was to lay out plans for the township and demarcate plots which were to be leased for commercial and residential purposes. The rents were to accrue directly to the chiefs. Government, not the landowners, would benefit from any land reclaimed from the sea and leased to traders.²³⁸

As soon as the deed had been drawn up, the European concession holders began laying claims to the land in question. One, Tom Bovey Barrett, had already acquired building plots at Takoradi. However, the claim that embarrassed the government most came from Mr Fitz-Townsend for 20 square miles, practically the whole of the proposed harbour site, the township and a great deal more. As soon as the government announced the harbour proposals, Fitz-Townsend (who was later described as living a hand-to-mouth existence at Sekondi) approached the Takoradi Stool for a concession. This he later disposed of to Sidney Henderson of the City of London. After exchanging hands a couple more times, the concession ended up with Samuel John Clark, also of the City of London, who put in a claim for compensation of £25,000. There was an immediate official response. W.R. Colone Rowe, Commissioner of the Western Province, was instructed to go to Takoradi to point out to the chiefs the implications of the Fitz-Townsend concession and to seek their support in challenging its validity. Not surprisingly, the chiefs cooperated. The terms of the lease, they argued, were never explained to them. The document was signed in pencil and could have been altered. The only land they intended granting was a plot in the Takoradi village for the construction of a warehouse.²³⁹ Fitz-Townsend and

the other European concession holders were therefore unable to pursue their cases.

Once that threat had been overcome, African land and property owners began to submit their own claims for compensation. In 1921, claims from the people of Amanful village amounted to £500,000. By 1922, claims had reached £1,300,000.²⁴⁰

Even before those claims could be examined, another problem arose. This was the publication of the Takoradi Harbour Committee Report in 1921, which stated that unless the government received all revenue from land, the harbour would run at a loss.²⁴¹ But it had already been agreed that the revenue would accrue to the chiefs. The report caused a reversal in government policy. First, the 1920 agreement was abrogated. Next, Colonial Secretary John Maxwell was instructed to open fresh negotiations with the chiefs, who would be offered less favourable terms – only 10 per cent from ground rents was to accrue to them. This provision was embodied in the Takoradi Harbour Lands Ordinance of 1921, which purported to give legal authority for acquiring the land.²⁴²

Aided by African lawyers, the chiefs rejected the government offer and turned to the courts. The issue at stake now was the legality of government action. The 1876 Land Act, under which the government passed the Ordinance authorising land acquisition at Takoradi, it was argued, applied to land required strictly for public works. A township in which land was to be leased to the public for private use could not be acquired under the same terms. The Takoradi Harbour Lands Ordinance 1921, counsel submitted, was therefore *ultra vires*.

The case came up for hearing in June 1923 at Sekondi. Even before all the evidence for the government had been presented, the judge, Mr Justice Hall, recommended that there should be an ‘amicable settlement’.²⁴³ The legality of the government’s position was dubious. In fact, the judge confided to Crown Counsel Mr Aitken that he was not favourably impressed with the government negotiations and doubted whether the Harbour Lands Ordinance – and, for that matter, previous railway land ordinances – were valid. He therefore suggested the payment of 50 per cent from ground rents to the African chiefs. In view of this, Aitken telegraphed the Governor that ‘in the special circumstances of the case and in view of the fact that the other side are able to prove [their case], this is probably the best I can do for the Government’.²⁴⁴

Guggisberg reluctantly agreed. He insisted that the negotiations had been made in good faith but conceded that, even if the courts ruled in the government's favour, it was likely that the chiefs would appeal to the Privy Council with some prospect of success. At a special Executive Council meeting on 23 June 1924, it was agreed to accept the judge's recommendations. On 30 June 1924, a settlement was reached – a lump sum of £10,000 was to be paid to the chiefs to meet all claims for compensation for property, excluding buildings at Takoradi and Amanful villages; 50 per cent of all ground rents were to go to the chiefs; and the government was to lay out and lease plots in the new township for which all expenses were to be derived from the portion of the rents that was due to the chiefs.²⁴⁵

Two other issues were still unresolved. The first related to the rehousing of people dispossessed by the harbour scheme. It was proposed that harbour engineers should construct temporary homes for those whose houses would be demolished first. But this policy was abandoned in favour of the permanent resettlement of the people in the proposed township. The villagers rejected plans for two-roomed houses, instead insisting upon three-roomed houses and larger compounds. The government balked at this because it would entail a further £47,000 on top of the £53,000 allowed for in their plan. The outcome was an agreement that full compensation should be paid and the people would build their own houses. This was particularly welcome to the government, as it would cost only £17,000.²⁴⁶

The second issue centred on the question of racial segregation in government town planning schemes. Although originally the government aimed to establish state control over land in the new towns, which by lease to European traders would generate revenue for the Treasury, the system soon degenerated into the institutionalisation of racial segregation in town planning. The first official move had already occurred in 1919, when the government published a guideline entitled *Residence in the Segregation Areas of the Gold Coast*. This forbade the transfer of plots in European segregated areas to Africans. It also made the presence of native children in these areas an offence. Servants and their wives were allowed to enter only between 9.00 am and 6.00 pm.²⁴⁷ The issue came into sharper focus with the publication of the Takoradi township plan in 1921. The plan included a European residential area located at the western end of the town, then industrial and commercial areas close to the harbour, and government offices and hospitals, as well as recreational grounds and parks located in the centre of the

township. The African township was to be located to the extreme east, towards Sekondi.

The people of Amanful were the first to object, as the scheme required them to move out of their homes to swampy areas in order to make way for the European settlement. They demanded assurance that half of their total land surface would be reserved for them for farming, fishing and dwelling purposes. More organised opposition came from the African educated elite, who once again rallied round the Aborigines Rights Protection Society. They argued that segregation was a 'selfish precaution' in so far as it purported to protect the health of only one section of the community. In all the principal railway stations and townships, the Society argued, Europeans had taken the best sites with the result that there was a 'tendency to squeeze the people out of every congested area left to them'.²⁴⁸ The demands of the African elites were that the government should allow them, 'the educated and better classes of the African community', to settle in a neutral zone adjoining the recreation grounds, adding that such a scheme would not undermine the health of Europeans.²⁴⁹ The demands of the African elites were limited; they neither opposed the principle of racial segregation nor demanded the right to live in the European areas. Instead, they wanted to be treated differently from the uneducated African population. The government willingly conceded by allocating land between the hospital and recreation grounds and the African township for an 'African residential area'.

Total Land Owned by the Railway and Harbours

In 1931–32, the government compiled a statement of the extent of state ownership of land.²⁵⁰ Although the statement had no information on the situation in Ashanti, it did show that in the Southern Territories state ownership amounted to a mere 52.28 square miles, approximately 0.20 per cent of the 23,937 square mile total land surface of the colony. But while the public domain was minuscule, it was significantly located at key railway stations and growing urban centres. Government ownership at Accra and its environs was 12.07 square miles; at Koforidua and New Juabeng District it was 4.63 square miles; Oda (terminal of the Central Province railway) 1.31 square miles; Sekondi-Takoradi 8.59 square miles and Tarkwa 5.29 square miles.

As in most parts of the British Empire, the authorities had hoped to declare all so-called unoccupied land Crown property. But faced with fierce

opposition from the indigenous landowners, the government had no choice but to become a sort of referee in land transactions rather than an outright owner. Because of the politically sensitive nature of land issues, the administration was unwilling to introduce new legislation to give itself the necessary powers to allocate even the limited amounts of land it acquired for the railways for private use. As a result, policy had to operate surreptitiously to advance government claims in the hope that nobody would object. When landowners did, as at Takoradi, the government was forced to compromise. In Ashanti, land for railway and urban development was acquired by force without legislative backing. Consequently, there was no legal basis for government ownership of railway land there, a situation which to this day continues to expose the railway companies to potential legal challenges from the local land owners.



Friendly gesture



Proposed town site at Takoradi, 10-August-1920



Tesbi Mantse and followers

Railway Investment and Colonial Financial Policy

In order to understand the pattern of railway finance on the Gold Coast, it is important to appreciate the colony's dependence on Britain and the British Government's attitude to public finance in the Crown Colonies. Earl Grey's dictum that 'the surest test of the soundness of measures for the improvement of an uncivilised people is that they should be self-sufficing'²⁵¹ succinctly illustrates the crux of imperial financial policy: money should never flow from the British Treasury to the Crown Colonies. The policy constituted one of the greatest contradictions of late nineteenth-century British imperialism. On the one hand, the Crown Colonies were expected to play a dual role, acting as sources of raw materials and as markets for metropolitan manufactured goods. On the other, if they were to undertake public work projects, which were crucial for these tasks, the funds had to be raised in the financial market. Although the Colonial Loans and Stock Act 1877 permitted the Crown Colonies to issue stock on the open market, they were prevented unlike the white settler dominions of New Zealand, Canada and Australia from competing with sovereign countries unless they issued their stock at a higher rate of interest.²⁵² This set an inescapable debt trap: the Crown Colonies were 'caught between high interest rates and stagnant growth and their only rational choice was to abstain from development programmes'.²⁵³

This was the dilemma that faced Chamberlain when he became Colonial Secretary. One of his first actions was to attempt to divert dividends from the Suez Canal shares into a central pool from which the Crown Colonies could borrow for public works projects. However, the Treasury was opposed because 'any new departures in financial arrangements inevitably lead to complications and upset comparisons'.²⁵⁴

But while the Treasury was unwilling to depart from its financial orthodoxy, opinion elsewhere was changing. Given the substantial capital costs involved in railway building, funding of the West African railway scheme should be seen as an activity for the Imperial government as much for as the individual colonies.²⁵⁵ It is noteworthy that this development arose from the special circumstances of surplus capital in the mid-1890s; economic recovery after the Great Depression of 1873–95 led to surplus capital not

only in the financial market but also in the Post Office Savings Bank and the Local Loans Funds, both of which were administered by the British Treasury. As Hicks Beach put it:

would it not be possible to direct existing local loans stock to loans for Crown Colony projects and raise fresh stock for home loans at a lower rate of interest . . . Chamberlain is certain to want accommodation of this kind and they [colonies] could pay good interest as compared to what we get here.²⁵⁶

In 1899, negotiations between the Treasury and the Colonial Office culminated in the Colonial Loans Act, which authorised the Treasury to lend money to the Crown Colonies from the Local Loans Fund for specified public works. The Act provided for a lump sum of £3.3 million to be expended on those works. The Gold Coast was an important beneficiary, receiving 20 per cent of the authorised loan capital (£676,000) for the Sekondi–Tarkwa railway line alone.²⁵⁷

Hardly had the Act been passed, however, than the outbreak of the Anglo-Boer War began to hit Britain hard. Capital became much more difficult to obtain. The British Government now found itself issuing large stocks for the war effort and the entire capital market was thrown into disarray. The Treasury's response was to raise the interest rate on money borrowed under the 1899 Act by 1 per cent to reflect market rates. It also declared that debt charges would constitute a first charge liability on the general revenue of the Colonies.²⁵⁸ In other words, capital charges under the 1899 Act were to be met directly from colonial revenues rather than from the project on which the money was spent.

In light of this, the Gold Coast administration decided not to borrow under the Act. One reason was that extending the Tarkwa railway by 124 miles to Kumasi would require funds far in excess of the £0.6 million provided for under the Act. The only way of raising the money was to go to the open market. But as money borrowed from Treasury would constitute a first charge liability on colonial revenues, the colony's financial position would not be attractive to stockholders.²⁵⁹

In the meantime, the senior Crown agent, Montague Ommaney, had transferred to the Colonial Office early in 1900 to become the head of the West African section. He immediately reopened negotiations with Treasury over the issue of Crown Colony finance, especially the finance of the West

African railway projects. He now insisted on a British parliamentary guarantee for Crown Colony stocks, as was the case with the white settler dominions. In July 1900, his demand resulted in new legislation, the Colonial Stock Act, which superseded the Colonial Loans and Stock Act 1877. Under the 1900 Act, Crown Colony stocks would be admitted as Trustee Securities of the British Parliament.²⁶⁰

Table 7.1, which shows the Gold Coast's Public Debt between 1900 and 1930, highlights that although the administration financed its railway and harbour works through loans raised on the London market, in practice the loans were not raised until the projects were either completed or nearing completion. The construction of the Sekondi–Tarkwa–Kumasi railway (started in 1898) was completed by 1903, but it was not until 1902–3 that loans were raised. Similarly, in 1919, a loan of £6 million was approved as part of the Guggisberg ten-year plan, £4 million of which was raised in 1920. The 1919 Ordinance was superseded by another in 1922, which provided for raising a further loan of £4.5 million to be expended on the projects already underway. However, it was not until 1925, two years prior to the completion of the works, that the loan was raised. So, how did the Gold Coast administration pay for its railway and harbour projects in their early stages?

The main source of finance during the project gestation periods was the colony's accumulated surplus funds. Out of a total of £13.7 million invested in the Gold Coast railways and associated ports and harbours, by 1927, no less than £5.8 million (49.8 per cent) had been advanced from the accumulated surplus balance. This was repaid once loans were raised on the capital market. In short, advancing money from surplus funds during the gestation periods of railway and harbour projects, together with the general profitability of the railways themselves, meant that the Colony was generally able to maintain budget surpluses well into the twenties. Thus, British capital investment in the Gold Coast railways and harbours did not place a heavy external burden on the financial resources of the colony, at least not until the twenties.

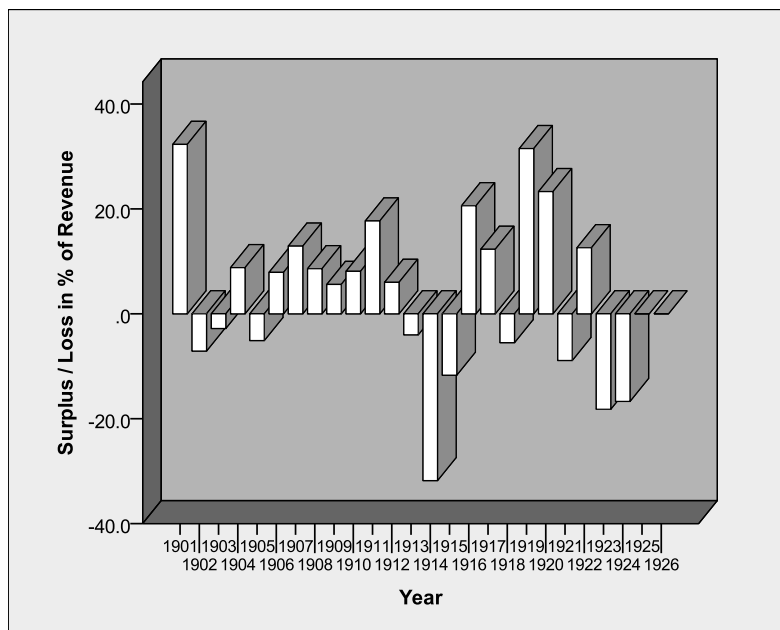
Table 7.1 Statement of Public Debts, 1900–30

Public debt	Owed to	Interest rate	Ordinance under and project for which expenditure was authorised	Commencement date of the project	Completion date of the project	Date the loan was raised
£607,716	Imperial Government	0%	1896–1900 on account of Ashanti wars	1896	1900	1896–1900
£1,035,000	Stockholders	3%	Ordinance No. 6 of 1898 and No. 10 of 1900 for Sekondi–Tarkwa–Kumasi line	1898	1903	1902
£63,000	Stockholders	3%	Ordinance No. 14 of 1902 for Kumasi extension	1900	1903	1903
£1,030,000	Stockholders	3.5%	Ordinance No. 4 of 1905 for Accra Railway	1906	1911	1909
£1,035,000	Stockholders	4%	Ordinate No. 6 of 1910 for Tafo extension and harbour works	1910	1914	1914
£4,000,000	Stockholders	6%	Ordinance No. 21 of 1919 for railway and Takoradi harbour	1919	1927	1920
£4,628,000	Stockholders	4%	Ordinance of 1922 for railway and Takoradi harbour	1919	1927	1925

Note: There were no public debts prior to the commencement of railway construction.
Source: Government Gazettes and Treasury Reports.

Statistically (Figure 7.1), an unexpected surplus colonial revenue in the first year was followed by a steady increase over the next decade or so until there was a marked departure from profitability in 1913–15 due to more railway and port developments. The ‘best’ return was in the war years when public expenditure was severely curtailed. These were followed by negative returns in 1923 and 1924 and then unusual entries for 1925–26 and 1926–27 when revenue matched expenditure. Statistical tests revealed no significant result of any time trend ($p = 0.34$ at best).

Figure 7.1 Government Surplus and Loss (per cent of revenue)



Reliance on surplus revenue for railway finance could have a negative impact on general public finance. Table 7.2 shows that, apart from the relatively high level of expenditure on law and order (which was crucial to the survival of the colonial state), ‘social’ or ‘welfare’ spending was very low. In 1920, it was estimated that only about 28,000 children (1.1 per cent of the Gold Coast’s school age population) were attending primary schools, while just 58,000 patients (1 per cent of the total population) were receiving hospital treatment.²⁶¹

The low priority accorded to education and public health was probably unavoidable given that, in developing an economy, expenditure on economic sectors takes priority as these will create the income and wealth necessary for welfare purposes. However, the priority given to railway and harbour investment was not accompanied by a corresponding promotion of other economic sectors, especially agriculture. In an essentially agrarian economy, one might have expected to find official attention to rural development, but the Gold Coast administration spent relatively little on this; a mere 1.5 per cent of the total annual government spending during the three decades to 1929. The administration’s endeavours to promote technical progress and

increase productivity in agriculture were rather few, hesitant and mainly misdirected.²⁶²

Table 7.2 Government Expenditure on Law and Order, Welfare, and Agriculture and Forestry Protection (five-year averages, £000s)

Years	Total expenditure	Defence, police and law	Defence, police and law as per cent of total	Health and education	Health and education as per cent of total	Agriculture and forestry	Agriculture and forestry as per cent of total
1900-4	874	291	33	35	4	3	1
1905-9	629	268	43	49	8	7	1
1910-14	1094	369	34	103	9	17	2
1915-19	1263	456	36	142	11	33	3
1920-24	3985	463	12	138	3	58	1
1925-29	4331	626	14	279	6	40	1

Source: Gold Coast, *Treasury Reports*, 1900–29

Could the colony have turned to other sources? This brings us to the question of taxation. Since Governor Hill's abortive 1852 Poll Tax, Gold Coast administrators had always considered direct taxation to be a politically sensitive issue,²⁶³ not least because colonial rule lacked legitimacy in the eyes of the colonised. On the Gold Coast, chiefs and lawyers, the spokesmen for the African communities on whom the colonial authorities relied for the implementation of policy, were always quick to point out the contradiction of 'taxation without representation'.²⁶⁴ Thus, in 1896 when Maxwell drafted a Hut Tax Bill which would have imposed a 10/- tax per hut or household, his deputy, Hodgson, was quick to point out the security dangers:

Even with the employment of force the full collection of the tax will remain doubtful, and the question arises therefore whether in order to collect say £70,000 it is worthwhile to stir up the country and create an interference with trade.²⁶⁵

Consequently, the authorities retreated to the less radical position of the indirect taxation of the export and import trades (see Table 7.3).

Table 7.3 Indirect and Direct Taxes (£000s)

Year	Total Revenue	Import Duties	Export Duties	Other Items	Royalties	Profit Tax	Mineral Duty
1900	385	281	—	—	1	—	—
1901	496	351	—	—	7	—	—
1902	512	382	—	—	3	—	—
1903	578	370	—	—	2	—	—
1904	682	384	—	—	5	—	—
1905	586	334	—	—	—	—	—
1906	683	386	—	—	9	—	—
1907	709	414	—	—	18	—	—
1908	752	490	—	—	15	—	—
1909	779	459	—	—	22	—	—
1910	1,007	611	—	—	18	—	—
1911	1,112	663	—	—	25	—	—
1912	1,231	736	—	—	28	—	—
1913	1,302	780	—	—	25	—	—
1914	1,332	769	—	—	24	—	—
1915	1,456	828	—	—	26	—	—
1916	1,886	1,150	32	—	17	—	—
1917	1,624	683	211	—	24	—	—
1918	1,299	489	131	—	28	—	—
1919	2,601	1,253	419	—	21	—	—
1920	3,722	1,711	571	—	23	—	—
1921–22	3,016	979	798	—	24	—	—
1922–23	3,357	1,494	541	—	20	—	—
1923–24	3,743	1,682	473	—	18	—	—
1924–25	3,971	2,000	283	—	23	—	—
1925–26	4,116	2,165	274	—	41	—	—
1926–27	4,365	2,075	318	16	31	—	—
1927–28	4,112	2,890	272	19	41	—	—
1928–29	3,914	2,264	321	18	38	—	—

Source: Gold Coast, *Treasury Report*, 1900–1928/29

While the colonial administration was willing to impose indirect taxes on Africans, the expatriate mining and trading firms were to a large extent exempt. The mining companies did pay royalties but, by 1929, these payments amounted to just £38,000, about 1 per cent of total government revenue. Merchant House did not pay any income tax or profit tax at all. Such taxes were paid in the UK. The white settler dominions, unlike the Crown Colonies, received half of the income tax derived from British firms operating in their territories.

In 1921, Guggisberg wanted a similar concession to be granted to the Gold Coast in order to ‘open a new lucrative source of revenue for public works’.²⁶⁶ He argued that not only did the colony derive no revenue from the operations of British firms but, more importantly, non-British expatriate companies were also exempt from taxation. In one of the blatant abuses of

colonial power, the Colonial Office conceded that profits earned in the colony ideally should be subject to income tax, but at the same time turned down Guggisberg's proposal on the grounds that it 'will diminish returns of the United Kingdom Income Tax'.²⁶⁷

At the core of Crown Colony financial policy was self-sufficiency manifested through the maintenance of annual budget surpluses. The primary role of government in the economy was to provide the public infrastructure and the relevant rules and regulations that would enable private investments to thrive. Taxation, both direct and indirect, rather than subsidies from the British Treasury, should have been the primary source of public expenditure. The inability of the colonial authorities to implement appropriate systems of taxation during a period of unprecedented economic growth represented more than merely lost opportunity for colonised populations in terms of development. Denying the Crown Colonies their fair share of taxes paid by British and other expatriate firms operating in these territories amounted to no less than the blatant theft of legitimate local revenues by the British Treasury. There are serious parallels with present-day attitudes by major international natural resource companies towards payments of profit and other tax in resource rich countries.

Chapter 8

The Management System, Personnel and Labour Relations

Following the British model, a centralised and functionally departmentalised structure was established. However, as the Gold Coast railways were publicly owned, the upper tier of decision taking was not a chairman and board of directors. That responsibility lay with the Secretary of State for the Colonies who set the broad managerial, technical and financial goals. In practice, much of the general policy making originated with the Governor acting as the Secretary of State's representative. Both men relied on the Crown agents and the consulting engineers for commercial, financial and technical advice. Although the role of the Crown agents was advisory, in practice, because of their wide experience in commercial operations in the Crown Colonies, their opinion was crucial in such important matters as rates and the recruitment of skilled labour. The day-to-day management of the railways was closer to the British model in that a general manager coordinated the activities of the four main functional departments – Locomotive, Maintenance, Traffic and Accounts. These had their headquarters at Sekondi. As the Railway Department operated as one of several branches of the Colonial Civil Service, the entire labour force, including management, were public servants and were therefore directly responsible to the Governor.

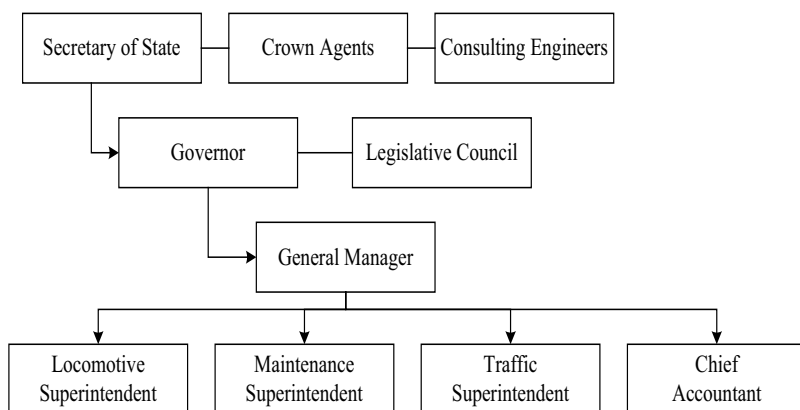
Figure 8.1 shows the hierarchical administrative arrangements and functional organisation of the Gold Coast railways.

There were inherent weaknesses in the administrative arrangements. One concerns the flow of information. In the early days, when communications between Africa and Europe were poor, the system was not conducive to the smooth running of the railways. The general manager, Governor, Secretary of State, Crown agents and consulting engineers were not only geographically remote one from the other but, institutionally too, they operated as discrete entities. Policy proposals made by the general manager at Sekondi, for instance, took weeks to arrive at the seat of the Colonial Government in Accra. Despatches from the Governor could take months to reach the Secretary of State in London who, as a matter of course, referred such matters to the Crown agents. They, in turn, took advice from the consulting engineers, after which recommendations were submitted to the Secretary of State for approval. The proposal then went back to the Governor who had

to pass a Bill through the legislative council to give the policy legal backing. The whole cumbersome system was subject to delays and inefficiency but, as Chamberlain pointed out, ‘the safety and, indeed the lives of passengers depended on continuous effective decision-making’.²⁶⁸

The fact that the railways lacked effective decision-making was demonstrated in 1904. In that year, an inquiry by the general manager as to the suitability of wood fuel for the locomotives took a full six months to reach the attention of the Crown agents and consulting engineers. Their advice was that the locomotives should first be provided with spark-boxes and fire-arresters and that suitable wood should be cut and properly dried before being used. In the interim, the railways had started burning the wrong sort of wood without first adapting the locomotives to its use.

Figure 8.1 Hierarchical Administrative Arrangements



The result was a number of accidents due to engine failures and a general deterioration in the locomotives.²⁶⁹ One solution was to circumvent the bureaucratic line of communication by allowing the general manager to deal directly with the consulting engineers on technical matters.²⁷⁰ In addition, as the telegraph, steamship and mail services improved during the first decade of the twentieth century, the delays in the flow of information were somewhat eased.²⁷¹

A more fundamental problem, which was to persist throughout the period under review, was managerial autonomy. There were two main areas of disagreement between railway management in Sekondi and officials in Accra or London. The first concerned railway rates. Because the general

manager had no control over tariff policy, the expatriate mining lobby was able, through the Colonial Office, to influence rates in their own interests, and uneconomic rates were imposed. Second, because the Colonial Loans Act 1900 made interest and sinking funds chargeable directly on colonial revenues, the railways did not keep a separate account. Thus, the Colonial Treasury both provided funds for railway maintenance and capital developments, as well as debt charges, and also reaped any profits. As we have seen (see also Chapter 9), the railways produced excess revenue over expenditure throughout the period under review. Consequently, the question of who would control the surplus revenue became a bone of contention, with management demanding a greater say in the allocation of profits.

As early as 1905, the general manager called for the creation of a Railway Renewals Fund into which any surplus revenue was to be credited, but the Governor resisted because 'so long as anything stands to its credit, it will be a strong temptation to the Railway Authorities to carry out unnecessary and extravagant expenditure'.²⁷² Instead, the department was asked to submit estimates for capital improvement as they arose. The ability of the Colonial Treasury to meet any such demands, however, depended on both the financial position of the colony and the priorities of the government. Consequently, successive annual reports reiterated that nothing short of an independent renewals fund and/or total separation of railway accounts from those of the Colonial Treasury would ensure that the current and future needs of the railways would be adequately met. It was argued that in the Federated Malay States and Ceylon, where government railways returned healthy profits, surplus funds were not only used to improve existing lines but were also largely responsible for major network extensions. On the Gold Coast by contrast, net revenues were as high as 9.01 per cent by 1910 but railway buildings were still the temporary structures erected for construction labour.²⁷³ The implication was that lack of managerial control over railway finances stood in the way of improvements to the system. As far as the colonial officials were concerned, the railways were doing perfectly well so long as they continued to run at a profit.

After the war, the issue of financial administration resurfaced. In 1921, Colonel Hammond reported that the lack of a renewal fund was handicapping the development of the network. His report was particularly critical of what was described as the 'neglect of the western line beyond repair', as a result of which it had to be reconstructed at a cost of £1 million.²⁷⁴ The report recommended that an annual contribution of about

£100,000 should be paid into a renewal fund. This fund, under the management of the general manager, was to be used for capital improvements and replacement of dilapidated equipment. Although this recommendation was accepted and the fund established, little changed because the central administration remained in sole control of policy. This point is well illustrated by the fact that when railway revenue plummeted from 1929 onwards (partly as a result of trade depression and partly due to motor competition) the fund was suspended.²⁷⁵ As the railway was in public ownership, how well it fared was inextricably tied to that of the colonial administration.

Labour: Managerial, Technical and Unskilled

One of the principal, perhaps most difficult, problems facing the managers of the Gold Coast railways was staffing the railway system. As the network was constructed, labour was needed at all levels, from the office of general manager down to the many unskilled labouring jobs. The staffing problem first emerged with the opening of the Sekondi–Kumasi line, which it was estimated would need a total staff of 1,444.²⁷⁶ By 1928–29, 6,120 people were employed. Finding and retaining employees with the skill, training and experience appropriate for what was a complex and technologically sophisticated operation in a country with virtually no history of industrial employment was a constant problem for the Colonial Government and railway managers. A three-tier structure evolved, reflecting the broad categories of labour requirements: managerial and supervisory, clerical and technical, and unskilled manual. The first category was filled exclusively by expatriate staff, recruited mainly from Britain. Clerical and skilled or semi-skilled technical positions were filled partly by European and other expatriate employees and, increasingly, by locally recruited African employees, while manual labour was performed mainly by casual or temporary workers. Comprehensive data on the composition of the workforce is available only from 1916 onwards (see Table 8.1). Unfortunately, the categories in Table 8.1 of European staff, permanent African employees and temporary African workers do not indicate the function carried out by each and can only be used as a rough guide to the three-tiered structure.

Table 8.1 Railway Workers, 1916–30

Year	Europeans	African clerical and skilled	African labourers
1916	119	888	1,758
1917	—	—	—
1918	99	798	1,625
1919	115	976	1,797
1920	129	1,083	2,308
1921	136	1,093	2,568
1922–23	142	1,228	2,706
1923–24	141	1,344	2,801
1924–25	146	1,484	3,302
1925–26	163	1,711	3,047
1926–27	168	1,686	2,828
1927–28	185	1,730	3,426
1928–29	181	1,658	4,281
1929–30	169	1,786	3,107

Source *Gold Coast Blue Books*, 1916–1929/30

Reliance on expatriates for managerial and supervisory positions was probably unavoidable given that the organisation and technology of the railway system had been imported from the United Kingdom. But in the years before the First World War, it was not always easy to recruit expatriates, not least because of health hazards in the tropics and a general shortage of railway skills at a time when railways were expanding throughout the world. In 1905, J. Mansfield, a former permanent way inspector whose appointment had been terminated on the grounds of inefficiency, stated on his return home: 'It is nothing less than murder the way the Railway is managed, and were there a better management, many of the Europeans that are buried would still be alive.'²⁷⁷ There is little doubt that he was aggrieved by his dismissal but his observation indicates that there were problems of health and managerial competence. These, it seems, made it difficult to recruit efficient expatriate staff. In July 1905, a Crown agent's minute stated:

Within the last two years, three separate officers had had charge of the Department and each had left the service more or less in disgrace, while the condition of the Department deteriorated badly.²⁷⁸

The following year, a railway committee of inquiry concluded that there was gross inefficiency among the expatriate staff generally and the various departmental heads in particular. On the committee's recommendations all section heads, with the exception of the chief accountant, were dismissed.²⁷⁹

Part of the problem was that experienced railway managers and supervisors were in such short supply that the Crown agents found them virtually impossible to come by. The solution was to offer higher salaries. In 1905, the locomotive superintendent's salary was increased from £500 per annum to £700, rising to £900 after two years, with a 20 per cent duty allowance.²⁸⁰ Although the Colonial Government was hostile to the idea, the evidence suggests that only by increasing salaries, housing and leave entitlements was the Railway Department able, by the early 1920s, to establish a relatively stable managerial staff. This is illustrated by the case of Mr Cozens-Hardy who came to the Gold Coast in 1901 as assistant surveyor of roads and was transferred to the Railway Department as assistant engineer in 1903. Three years later, he became general manager of the railways.²⁸¹ Longer periods of residence by European staff became more common after the First World War when health and living conditions improved. Men not only stayed longer in the colony but began to bring their families to live there.²⁸²

The costs of attracting and retaining expatriate staff were high. By 1920, the salaries of European employees, who constituted only 3.75 per cent of the total workforce, accounted for 44.33 per cent of the total wage bill (see Table 8.2). A 1922 inquiry into the railway explained that:

A European in West Africa is a costly commodity; he costs the Railways anything from 80 to 100 per cent over and above his salary for each month he puts in, depending on whether he is on the twelve or 10 months rule for leave. He never costs less than 800 pounds sterling and usually at least 1,000 pounds sterling per year.²⁸³

The costs of expatriate staff illustrate the observation that the skilled European in the tropical colonies was 'one of God's most expensive creatures on earth'.²⁸⁴

The Europeans employed by the Gold Coast railways, although increasing in number, declined slightly as a proportion of the total labour force between 1916 and 1929–30, as did the large section of the workforce comprising casual manual labour. The most striking feature of change in the composition of the workforce was in the number and proportion of permanent African employees, which rose from 4.23 per cent of the total in 1916 to 14.98 per cent in 1929–30 (Table 8.2).

Table 8.2 Distribution of Railway Operation Wage Income

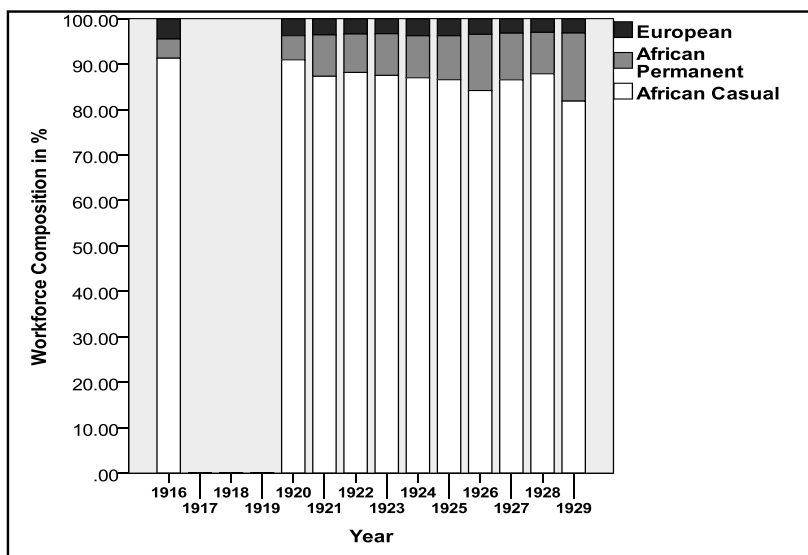
Year	Total number of railway workers	Total wage bill (salaries and wages) (£)	European staff as per cent of total railway labour force	European staff as per cent of total wage bill	African permanent employees as per cent of total railway labour	Total wages of permanent African staff as per cent of total wage bill	African manual labour employed on temporary basis as per cent of total labour force	Total wages of African manual labour as percentage of total wage bill
1916	2,765	109,000	4.48	41.96	4.23	8.68	91.29	49.36
1917	—	—	—	—	—	—	—	—
1918	2,522	112,000	N/a	N/a	N/a	N/a	N/a	N/a
1919	2,888	109,000	N/a	N/a	N/a	N/a	N/a	N/a
1920	3,520	159,000	3.75	44.33	5.31	13.28	90.94	42.39
1921	3,791	196,000	3.58	37.82	9.11	18.13	87.31	44.05
1922–23	4,076	200,000	3.38	40.58	8.46	21.96	88.16	37.46
1923–24	4,186	226,000	3.32	34.11	9.17	22.36	87.51	43.53
1924–25	4,932	246,000	3.77	32.11	9.24	23.22	86.99	44.68
1925–26	4,921	258,000	3.77	30.59	9.67	23.31	86.56	46.10
1926–27	4,682	267,000	3.46	32.56	12.36	28.10	84.18	39.34
1927–28	5,341	269,000	3.20	34.26	10.26	28.67	86.54	37.07
1928–29	6,120	274,000	3.02	37.33	9.11	26.23	87.87	36.44
1929–30	4,539	279,000	3.17	37.29	14.98	28.07	81.85	34.64

Source: *Gold Coast Blue Books*, 1916–1929/30

Statistically, the percentages of all three categories of employees change in a linear fashion and significantly ($p < 0.05$) over the years examined (1916–29). Europeans decrease by an average of 0.087 per cent per year ($p = 0.002$); permanently employed Africans increase by 0.65 per cent per year ($p = 0.001$); and casual African workers decrease by 0.56 per cent per year ($p = 0.003$) (Figure 8.2).

Although this trend cannot be measured before 1916, it appears that the most pronounced change between 1903 and 1929–30 was the emergence of a stratum of permanent African railway employees engaged in a variety of occupations requiring some skill or experience.

Figure 8.2 Percentage Change in Overall Workforce Composition over the Study Period



Apart from the obvious advantages of improved health and better knowledge of the environment, training Africans to replace European expatriates would be cost-effective in the long run. As far as the managerial and supervisory grades were concerned however, this was not contemplated for there was a great deal of racial prejudice regarding placing Africans in positions of responsibility. In 1907, when vacancies occurred in the Colonial Civil Service for which qualified Africans were available, the Governor blanketly ruled that they were not to be appointed as district commissioners or magistrates as they would have little influence among their people.²⁸⁵

As regards the middle stratum of railway employees (clerks, fitters, drivers and artisans) the authorities favoured the appointment of Africans, primarily because of the cost and difficulty of obtaining these skills from abroad. Initially, they did come from Britain and the West Indies. Black West Indians in particular were preferred, not only because they adapted to the climate and food more readily than white expatriates, but also because they were paid less. Wages for locomotive drivers in 1905, for instance, were £40 per annum for Africans, £100 for West Indians and £250 for Europeans, which was the lowest rate paid to white employees at the time.²⁸⁶ The

proposed mass recruitment of black West Indians in 1905, however, fell through because there was a general shortage of their skills in the West Indies itself and the governments there were opposed to the scheme.²⁸⁷ Thus, although a few workers joined the department, they never made up a significant proportion of the labour force. By 1908, just seven West Indians were employed in the central workshop at Sekondi. They were reported to be 'doing good service'.²⁸⁸

In the absence of black West Indian skilled labour, the railway managers turned to creating an indigenous African skilled labour force. Here, it was easier to recruit and train people for clerical and accounts occupations than for the artisan and technical jobs. The colonial education system was appropriate to white-collar skills, but these skills were readily available from the existing bureaucracy. Thus, initially, clerical and accounts workers were seconded from the Treasury and other departments and increasingly were recruited from the growing numbers of school leavers.²⁸⁹ They were the most secure and stable of the middle stratum of railway employees, making the Accounts and Traffic Departments more efficient than the others.

The creation of a technical and artisan class, on the other hand, was a bigger problem. One solution was to develop the skills of construction labourers. This had begun in 1902 when 32 men were selected and, with the aid of one West Indian inspector and four Lagos sergeants, were trained to form the nucleus of a railway police force.²⁹⁰ The following year, the construction engineers' report noted that more labourers, including Nigerians, had been offered permanent employment in the Railway Department as locomotive drivers, signallers and fitters.²⁹¹ Although figures are not available, the evidence suggests that before the war, the railways relied on developing the skills of manual workers. As early as 1908, Europeans employed in the foundry had been replaced by Africans and, two years later, the general manager reported that 'all the brass engine axle boxes being made entirely by native labour are running very satisfactorily'.²⁹² By 1912, replacing expatriates with Africans in the lesser skills was undoubtedly proving very successful. In this respect, the Gold Coast was more advanced than the other West African colonies:

The natives of the Gold Coast unlike those of Nigeria and Sierra Leone turn out, I am told, very efficient drivers, fitters and mechanics. They are largely employed in driving trains, and to do much of the work in the shops, which would elsewhere on the Coast be left to white men.²⁹³

The main weakness of training manual workers, as Guggisberg later pointed out, was that these workers were illiterate.²⁹⁴ This not only restricted their prospects of promotion, but overall efficiency may have also been impaired. To overcome this, the emphasis shifted from improving the skills of manual labour to more formal training schemes.

As early as 1906, the general manager submitted two proposals, one to train railway artisans abroad and the other to establish a technical school to train skilled workers for the railways. Nothing came of the suggestions.²⁹⁵ Although an apprenticeship training programme was introduced in 1907, it met with limited success – by 1921, no more than eight trainees had successfully completed the course.²⁹⁶ Part of the problem was that the conditions of apprenticeship were initially unattractive. It was long and poorly paid. Apprentices first served a six-month probationary period at 3d a day subsistence, followed by five years' training, after which they served two years before being offered employment. Desertion, particularly to the mines, was common. Following post-war labour unrest, however, conditions improved. Training was reduced to three years with a daily wage of 1/6d in the first year, 2/3d in the second and 3/- in the third. Sunday classes were also introduced. The response was immediate: by 1925 apprenticeships had reached 85, with a further 15 on the waiting list.²⁹⁷ There was also a new source of recruitment of artisan skills when the first batch of graduates (three carpenters and three metal workers) arrived in the department from the newly established technical training school in Accra. These were described as 'well trained, well disciplined, and have a satisfactory attitude towards their work'.²⁹⁸ As a result, Africanisation took place in the lesser technical skills. By 1926, there were only seven European drivers compared to 68 Africans in the Locomotives Department.

The recruitment and training of Africans was only one step towards the creation of a permanent workforce to run an efficient railway service. Just as higher salaries and better living conditions promoted stability among the European managerial and supervisory staff, so too wages and fringe benefits determined whether African skilled workers stayed on the job. Although management was aware of, and frequently commented on, these problems, they did very little to improve conditions for the large majority of the African labour force. This largely stemmed from a combination of racial prejudice and colonial policy, which was committed to low production costs.

Workers' Grievances and Labour Relations

In the absence of a coherent managerial policy, conditions varied from one place to another. At the small railway stations in the interior, some workers, especially the clerks, occupied the wooden and corrugated iron sheet houses, which had originally been used by construction labourers. These houses were rudimentary and extremely uncomfortable and their maintenance costs were very high.²⁹⁹ The conditions were even worse in the towns that were springing up as a direct result of the railways and harbours. The population was growing rapidly in areas with little in the way of housing stock. Consequently, insanitary conditions were rife. The inevitable social problems impaired the workers' efficiency. The general manager at Sekondi wrote in 1912:

This is an upstart town . . . houses are almost impossible for the new men to find, rents are exorbitant and incidentally, the cost of living is high . . . at present the men live all over the place in wretched conditions, and when urgently wanted cannot be found.³⁰⁰

He asked for living quarters to be constructed for the clerical and accounts staff, for which a reasonable rent would be charged, but nothing came of his demand.

Wage levels and social security provision differed from one skill to another. The accounts and clerical staff enjoyed greater job security and better working conditions than the artisan and technical group. The clerical workers were in an advantaged position because they had been seconded from other government departments and were already well entrenched in the colonial bureaucracy. As early as 1907, a grading system with fixed salaries and pensions had been established for all accounts and clerical employees,³⁰¹ with the result that there was a relatively high level of stability. As the chief accountant observed in 1916, 'there is more than one native who is distinctly qualifying for the highest rank of the civil service'.³⁰²

Managerial attitude towards the technical and artisan workers was ambivalent. The artisans were still acquiring their skills through training on the job. Once these skills were mastered, the workers' wages were increased to 2/6d a day. But the artisans were still not salaried. This meant they were excluded from fringe benefits such as pensions, annual paid leave and sick leave. This helps to explain the higher turnover rate. In the words of the

general manager, 'the native artisan failed to realise that railway work is a career and not work to be taken up for a year or two interleaved with other employments'.³⁰³

A year later, in 1916, the general manager observed that better conditions, such as a pension scheme, were needed to give the artisans 'fixity of tenure and ensure their contentment and willingness to remain in service'.³⁰⁴ In this, he was influenced by changes that had been taking place on the railways in other parts of British West Africa. In Sierra Leone, pensions had been introduced for all skilled railway workers who had spent seven years or more in the service and in Nigeria, a provident fund had been established for all workers.³⁰⁵ Although countless discussions took place, policy remained unchanged. This was to have far-reaching consequences for labour relations after the war.

The first significant industrial dispute on the railways occurred in June 1918 when workshop mechanics at Sekondi laid down their tools.³⁰⁶ The immediate cause was related to the setting up in 1917 of a new railway workshop near Ketan, 3 miles outside Sekondi, to which workers had to be taken by train. When the works had been based at Sekondi, both the clerical and artisan staff worked from 7.00 am to 11.00 am and 1.30 pm to 4.30 pm. Following the move, clerical and accounts staff hours were changed to 8.00 am to 2 pm daily, without a lunch break. A request to work similar hours from the artisans was turned down because 'the work is never as efficient when the men do not have a break in the middle of the day'.³⁰⁷ The result, as one official put it, was that the mechanics saw the clerks' train 'steaming away' shortly after they themselves had returned from their lunch break.³⁰⁸ Discontent was further aggravated when the mechanics were told that they would have to work to 5.00 pm. They argued that because their lunch break was too short to prepare a cooked meal most men did not eat, while by the time they got home in the evening the markets and shops were closed.

These grievances, which turned on differential treatment of white-collar and blue-collar workers, led to the workshop mechanics declaring a strike. Management ordered the men to return to work promising that their grievances, once submitted in writing, would be considered. The strike, which was confined to the workshop mechanics, lasted for one week.

One significant result was that the strike triggered a series of petitions from several sections of the labour force about working and living conditions. It thus appeared that the dispute over working hours at Sekondi was merely a symptom of general discontent. The petitions seemed to follow

a similar pattern. They were mainly concerned with wages, pensions, annual and sick leave, summary dismissals, housing and promotion. However, when these complaints are examined, there seem to be two main problems.

The first, which has already been identified, was management's differential treatment of clerical and accounts staff compared with their technical and artisan counterparts. Table 8.3 shows wages of the two categories of skilled railway workers in 1905 and 1918. Minimum and maximum salaries for clerical workers nearly doubled over the period under review but the minimum wage of artisans remained frozen at 2/6d, though, once appointed, they received annual increments. In addition, the administration granted a war bonus to all salaried staff, which further aggrieved the non-salaried workers. One official summarised the situation: 'Ever since the railway clerks were given pensionable status, the man who wields the hammer claims to be put on the same footing as the man who wields the pen.'³⁰⁹

Table 8.3 Comparison of Accounts and Clerical Staff and Artisan and Technical Staff Wages

Year	Accounts and Clerical Staff		Artisan and Technical Staff	
	Minimum salary (probation)	Maximum salary	Minimum wage	Maximum wage
1905	£25–£40 p.a	£150–£200 p.a.	2/6d p.d	3/- p.d.
1918	£48–£72 p.a	£240–£336 p.a.	2/6d p.d	5/- p.d.

Source: Memorandum Suggesting Difficulties as Regards the Proposed Extension of Pensionable Rights to the Daily Paid Staff of the Railways, General Manager, Sekondi, 1919, Appendix XV in *Report and Recommendations of a Committee Appointed to Consider the Conditions of Service of Railway Native Mechanics*, Sessional Paper No. XIX, 1918–19

Second, wartime inflation greatly increased the cost of living. By 1918, food prices in Accra were 50–60 per cent above the pre-war levels, while in Sekondi price increases were as high as 400 per cent (see Table 8.4). Thus, massive inflation was occurring in a period of stagnant money wages, resulting in a drastic fall in real wages for the majority of artisans. As a result, railway workers were forced to take goods on credit or borrow from petty traders and moneylenders who were exploiting the situation. Indebtedness among railway workers was widespread.³¹⁰

Table 8.4 Commodity Prices at Sekondi

Commodity	Pre-1914 prices	Prices in 1918
Cassava	6 large ones for 3d	3 small ones for 6d
Plantains	8–10 for 3d	3 to 4 for 3d
½ cwt bag of rice	7/6d	30/-
Kerosene oil per tin	3/6d	10/6d
Matches per packet	3d	1/-
Shirt	1/9d–2/6d	3/-–6/6d
Wearing cloth per piece	5/-–9/-	15/-–21/-
Rent per month	5/-–8/-	18/-–20/-

Source: Memorandum Suggesting Difficulties as Regards the Proposed Extension of Pensionable Rights to the Daily Paid Staff of the Railways, General Manager, Sekondi, 1919, Appendix XV, in *Railway Mechanics Report*.

In November 1918, six months after the mechanics' strike, the government appointed a committee of inquiry under the chairmanship of J. Maxwell, Commissioner for the Western Province. Other members were F. Cogill, secretary for the Mines Department, and L.G. Corney, president of the Mines Managers Association. Significantly, the artisans' main demands were excluded from the commission's terms of reference. They were instructed to consider:

1. how conditions of service of native mechanics on the railways compared with those of the mines and elsewhere for similar labour;
2. whether any, and if so what, appointments should be made pensionable; and
3. if not, what steps could be recommended to give greater security to such workers.

Both the limited jurisdiction of the committee and its composition were to affect its findings.

The report, which was presented early in 1919, found that rates of pay on the railways compared favourably with those in the mines. Hence, they did not recommend any increases in pay. The report did however conclude that improvements in conditions were necessary and advocated several changes:

1. the provision of housing accommodation near the workshop, for which a reasonable rent would be charged;
2. the introduction of night and travelling allowances;
3. granting of gratuities in cases of permanent disablement not resulting from the fault of the workman;
4. the system of dismissal and suspension should be modified so that, in cases of long service, each dismissal came before the general manager;
5. the working hours in force prior to June 1918 should be restored; and
6. the creation of thirteen pensionable posts of senior locomotive drivers, leading fitters and artisans, and workshop foremen for African staff.

The effect of the proposed changes was very little: there were no general wage increases and the majority of artisans remained on daily wages. There seems to have been several interrelated explanations for this. First, the need for a permanent committed railway workforce was contradicted by the need of management to have as much control over labour as possible. Thus, the committee recognised that, in order to secure a stable labour force and increase productivity, it was necessary to award pensionable status to artisans who had served for seven years or more, as had been the case on the Sierra Leone railways since 1914. Management objected on the basis that it would reduce their control as these employees would have greater job security and could not be summarily sacked. The newly promoted general manager, Mr Cozens-Hardy, explained:

It is highly desirable that the powers of the General Manager relating to the employment and dismissal of the workshop staff should not be curtailed in any way which would certainly be the case were any of them to be made pensionable and the difficulty will be to retain the former and at the same time ensure the artisans some fixity of tenure.³¹¹

The general manager favoured a provident fund based on the Nigerian model. The fund functioned as a mechanism for controlling the labour force, in that workers would be reluctant or even powerless to quit while the railway administration was holding a portion of their wages. However, because of the high cost of living, it was decided to defer implementing the fund. There is no record to show that it was ever introduced.

Second, the need for a permanent and stable workforce was at odds with what appeared to be a low-wage policy. Although the committee did consider the extension of the war bonus to the non-salaried workers in order to meet the rising cost of living, the cost (estimated at £9,000 p.a.) was considered too high,³¹² even though the railways were making handsome profits at the time. Instead, the traditional African social economic system would continue to be used to supplement wage labour so that employers would not have to pay the full cost of subsistence in the form of a living wage and pensions. As C.H. Harper, the Colonial Secretary, forcefully argued, 'the native family Stool [land], rather than pensions, should provide protection from destruction on retirement'.³¹³

Finally, the relatively underdeveloped labour market for artisan and technical skills did very little to bolster the workers' bargaining position. Thus, while the government refused to grant wage increases to artisans, on occasion it was prepared to respond to demands for wage increases for unskilled labourers.

So limited were the results of the commission of inquiry that more strikes were staged from 1919 onwards. The 1919 strike was joined by the workshop staff at Sekondi, rapidly followed by their colleagues in the running sheds and power house, and the crane operators at the dock. All attempts by the authorities to intimidate them back to work failed and the strike lasted for five weeks.³¹⁴ By 1920–21, strike action had spread to Accra and the outstations. Guggisberg, who was still calling the workers' demands 'exorbitant', was intransigent. As he later reported to the Colonial Office:

We had a practical cessation of all labour at the beginning of the year, 1921, owing to strikes by workers . . . all employers of labour stood firm and artisans eventually returned to their work.³¹⁵

The wave of strikes between 1918 and 1921 was a real headache for a management struggling to keep lines open and meet the needs of railway users. However, it achieved little for the workers involved. Most strikes were sporadic and short-lived and men returned to work without their demands being met. Two factors explain this. First, there was little solidarity and group consciousness among the workers themselves, so that each struggle was atomistic. During the 1918 strike, for example, all the locomotive drivers continued working, for which they were awarded a bonus. In 1919, apprentices returned to work after one week on the promise of a bonus and improved conditions. European workers were also always more than willing to cover the duties of the strikers. Second, the colonial administration, which regarded strikes as a direct challenge to its authority, was prepared to use coercion to break them. It was particularly encouraged in this by an abortive attempt to derail a train during the 1919 strike at Sekondi. Strike leaders and pickets were arrested, tried and convicted.³¹⁶ Because the employers stood firm, there were no wage increases for the technical/skilled railway workers between 1918 and 1921, or indeed over the entire three decades up to 1929. Gains were limited to the change to salaried staff status for thirteen of the most senior artisans in 1919, which may have had the effect of reducing their leadership role in the strikes, and to the introduction of improved housing. By 1923, some 103 new housing units had been completed,³¹⁷ which presumably helped to dispel some of the unrest.

The general manager's report for 1920–23 indicated that labour protests had subsided 'and there was no appreciable shortage of labour as well as artisans during the year'.³¹⁸ For the rest of the decade, there was no repetition of the strikes which had marked the years between 1918 and 1921. It seems unlikely that the modest gains made during that time were enough to appease the workers. It is more probable that the slackening of inflationary pressures in the Gold Coast economy,³¹⁹ together with a gradual acceptance of the decline in real incomes, accounted for more stable industrial relations from 1922 to 1929.

Although the post-war labour protests achieved little materially for the large majority of African railway workers, the period is nonetheless significant because it marked the emergence of workers' organisations. The

history of trade unionisation among Gold Coast railway workers has been extensively covered elsewhere.³²⁰ In colonial Africa, organisations often appeared first among railway and dock workers, partly because skills acquisition had created permanence in employment and partly because the nature of the job encouraged contact between workers.³²¹ In British West Africa, although the formation of trade unions was illegal until 1938, the roots of such organisations on the railways have been traced to the immediate post-war years.³²² On the Gold Coast in particular, following the labour protests, railway workers made two concerted efforts to form unions; first in 1920 when an Artisan and Labourers Union was formed in Accra, and again in 1923 when a Railway Workers Association was formed in the locomotive workshop at Sekondi. Neither was successful.³²³ In fact, the activities of the Association were limited to financial assistance for bereaved members, finding accommodation and organising credit for new employees, and social functions.³²⁴ Thus, throughout the 1920s, the emphasis remained on welfare provision on a cooperative basis rather than trade union activities in the real sense of the word. On the other hand, both Hughes and Cohen's work on Nigeria and Conway's work on Sierra Leone have identified the development of much more permanent and stronger railway unions from the early 1920s.³²⁵ But why should effective unions have first appeared there?

One frequently cited explanation is that the colonial administration on the Gold Coast was more antagonistic than the other colonies to the trade unions that existed there. In 1920, when the Colonial Office advised all Crown Colony administrations to treat workers' organisations in accordance with the 1919 International Labour Convention, Guggisberg cautioned the Secretary of State to 'do nothing to hasten the growth of unionism'.³²⁶ When the newly formed Accra Artisan and Labourers Union demanded an oath of allegiance from its members, the government arrested and charged its leaders under African customary law for swearing an oath.³²⁷ The administration was particularly keen to suppress the nascent union because its leadership had James Akrong, an Accra journalist and a non-railway employee, as its general secretary. What is more, the union aspired to grow and establish branches throughout West Africa. Unsurprisingly perhaps, nothing was heard of the union after 1920. While these early attempts at unionism were largely ineffective, they did much to develop the skills and leadership needed for the unions that developed at the eve of the Second World War.³²⁸



Colonel, Engin and staff



Head Clerk



Store-keeper



English Overseer



Sanli Polisman

Colonial workers



Followers of the Jamestown Mantse (king)



Some colonial leaders

Operational Problems and Issues

While labour recruitment and industrial relations were the biggest problems railway managers faced, managerial and technical staff also had to solve a host of problems relating to day-to-day operations. Although relatively mundane, these demanded no less attention if the network was to function smoothly and efficiently. Broadly speaking, there were three areas of operational concern: safety and maintenance of railway stock and track; tariff regulations; and general efficiency.

Safety and Maintenance

The Gold Coast railways had a poor safety record. Accidents were frequent and often resulted in fatalities. Table 9.1 provides data on the safety record of the railways. The data reveals that the number of falling trees, the largest single cause of accidents when the railways were first opened, rapidly declined from a peak of 261 in 1909 to just three in 1917; and the number of accidents resulting from derailments increased from 54 in 1905 to 121 in 1923–24, which was the last year for which data were gathered. As a ratio to total mileage worked, as the system expanded over time, the problem of derailments, although fluctuating, worsened, from 1:3.1 in 1905 to 1:1.6 in 1922–23.

The problem of trees falling on the track had two main causes. The first was that the railway was constructed through dense tropical rainforest; the second was a lack of foresight on the part of planners in failing to acquire sufficient land on each side of the track on which trees could be felled. Another potential cause was the lack of appropriate resources for cutting the trees down in the first place, both in terms of people and tools or machinery. The problem first came to light with the opening of the western line, on which as many as 45,000 trees along the line constituted a danger.³²⁹ This was at its most acute during the tornado season between April and June: ‘in one tornado 56 trees fell across the line in one locality, wrecking sixteen miles of track and telegraph lines’.³³⁰ The relatively simple solution was the decision, made in 1908, to obtain more land on both sides of the track on which all trees would be felled.

Table 9.1 The Major Causes of Accidents and the Numbers of Fatalities on the Railways

Year	Accidents caused by fallen trees	Fallen trees to miles open (ratio)	Accidents caused by derailments	Deraillments to number of miles open (ratio)	Accidents caused by engine failures	Engine failures to miles (ratio)	Fatalities
1905	146	1.2	54	3.1 (miles)	36	4.7	7
1906	95	(miles)	41	4.1	16	(miles)	12
1907	195	1.8	59	2.8	20	10.5	2
1908	230	0.9	39	4.3	3	8.4	11
1909	261	0.7	24	7.0	1	56.0	14
1910	112	0.6	49	3.4	5	168.0	4
1911	56	1.5	65	2.9	27	33.6	11
1912	62	3.4	78	2.8	20	7.0	7
1913	N/a	11.1	Na	N/a	Na	11.1	N/a
1914	46	N/a	92	2.5	19	N/a	14
1915	30	4.9	71	3.5	6	11.9	9
1916	6	8.2	74	3.4	10	40.8	9
1917	3	41.3	96	2.8	17	24.8	7
1918	N/a	89.3	N/a	N/a	N/a	15.8	N/a
1919	3	N/a	78	3.4	24	N/a	5
1920	—	89.7	92	2.9	31	11.2	10
1921	—	—	140	2.0	54	8.7	7
1922–23	2	—	211	1.6	65	5.1	4
1923–24	—	167.0	121	3.1	37	5.1	8
1924–25	—	—	N/a	N/a	N/a	10.2	16
1925–26	—	—	N/a	N/a	61	N/a	9
1926–27	—	—	N/a	N/a	N/a	6.5	10
1927–28	—	—	N/a	N/a	36	N/a	16
1928–29	—	—	N/a	N/a	41	13.3	13
1929–30	—	—	N/a	N/a	N/a	12.1	12

Source: General Manager, *Railways Annual Reports*, 1905–1929/30

A more familiar concern was derailments. Here there were a number of causes. First, the tracks were badly laid, and second, corrupt practices resulting in shoddy construction were endemic. As the general manager stated in 1904: ‘The soil through which the railway passed whilst standing well in cuttings was, generally, friable on banks and wastage under tropical rains is heavy.’³³¹ On one occasion, a bank sank while a train was passing over it although it had been tested only one hour previously.³³²

One answer was to re-ballast the whole line with broken stones and gravel. Another solution was to plant grasses which could help prevent erosion: ‘Lemon grass forms an almost perfect protection to the cess of the bank [and] bahama grass binds the soil well but has the tendency to get amongst the ballast from which it is difficult to eradicate.’³³³ Sweet potatoes were also planted alongside the line to inhibit the penetration of bush: ‘where allowed to grow up to the edge of embankments, it has some small effect in lessening wastage and protects cuttings from rain-scour’.³³⁴

Another factor was over-utilisation of railway capacity. The railways, especially the western line, were originally designed to carry light traffic. But as the system expanded, both in length and in terms of traffic, the track proved inadequate. Thus, by 1913, when heavier locomotives and rolling stock were introduced, 'it was found that the tracks got much displaced'.³³⁵ To overcome this, speeds had to be limited to 10 miles per hour. The problem was aggravated during the war when neither funds nor materials were available for track and general maintenance.

By the end of the war, the western line was in such a poor state that the whole line had to be reconstructed. This reduced the incidence of derailments from 1924–25 onwards and helps to explain the marked fall in the cost of track maintenance during the 1920s.

The third major cause of accidents, and the one for which management had failed to find a permanent solution throughout the first three decades of the century, was engine failures. There were several causes, but principally it was because there were too few experienced locomotive engineers, especially before the war.

Lack of a regular water supply, especially during the dry season, was another problem. Although water trains were run to supply filling stations, they were expensive and unreliable. Locomotives either ran out of water or resorted to using dirty water.³³⁶ It was only by drilling wells along the lines and the commencement of urban water work programmes after the war that the problem was eased.³³⁷

In spite of any improvements, defects in locomotives persisted throughout the 1920s. One difficulty was that there were such seasonal shortages of locomotives and railway stock, especially during the main cocoa seasons, that not only were locomotive capacities frequently exceeded, but it was impossible to take the engines to the workshops for servicing. These problems were exacerbated by the fact that locomotive maintenance involved the most complex and technologically sophisticated aspect of railway operation, and required workshops, machinery and an electricity supply, all of which became generally available only towards the end of the 1920s.³³⁸ Not surprisingly, the maintenance of locomotives and rolling stock absorbed the lion's share of recurrent expenditure.

But while problems associated with track and stock maintenance were probably unavoidable, there also seemed to be a lack of initiative on the part of the authorities regarding general safety. As early as 1904, the general manager reported an incident involving an excursion train carrying Ashanti

chiefs and their entourage which had lost control. He warned that unless safety measures were adopted, the popularity of the railways among the Africans would suffer considerably.³³⁹ He wanted automatic vacuum brakes and lighting systems. This would not only improve safety but would also make it possible for traffic to run at night. However, the Crown agents advised the general manager instead to adopt a manual braking system with one brake boy responsible for stopping the wheels 'by placing pieces of wood in front of them'.³⁴⁰ Brake boys would also handle traffic and other station duties, thereby reducing the need for resident manpower at railway stations.³⁴¹ A uniform signalling system was also needed and the use of railways as footpaths by traders, passengers and the general public had to be stopped, as it added to the hazards.

Although management was aware of and frequently commented on these problems, they did little about it. As late as 1912, when Cruikshank took up his appointment as general manager, he was shocked by the neglect of safety precautions:

I have already referred to the tortuous nature of the railway, and for this reason alone it is to me surprising that engines and rolling stock are not fitted with continuous automatic brakes. Practically all the stock of every other railway is so equipped, and here we have a most difficult road through dense bush with sharp curves and heavy grades, the danger of falling trees, the railway treated by natives as a public thoroughfare and no means of quickly stopping trains.³⁴²

By 1916, the trains had been provided with automatic brakes and a uniform code of signalling had been established throughout the system.³⁴³ It was not until the 1920s, when the incidence of accidents involving motor traffic became prevalent, that level crossings were considered.³⁴⁴ Furthermore, although the railways were still being used as a thoroughfare for pedestrians, no fences were erected to prevent this. Inquests were held into all fatalities on the railways, but no real blame was ever attached to railway management or employees.

Tariff Policy

Safety and maintenance were fundamental to the smooth running and efficiency of the railways but attracted little public interest. Tariffs, by

contrast, could not escape public attention. After all, railway rates had direct implications for the powerful expatriate commercial interests.

The main factors that influence traffic development on any railway are competition and rates. At first there were no major competitors on the Gold Coast apart from traditional head-loading. In other words, the railways enjoyed a near-monopoly. Initially, tariff rates were high compared with those of the other British West African railways. In 1903, three classes of passenger fares were charged: 5d per mile for first class, 2d for second class and 1½d for third class. The third class was not immediately implemented because it was thought that all African passengers would be employed by the mines or trading firms, at whom the second class rate was aimed.³⁴⁵ Goods traffic was similarly classified into three classes, which were charged 2/6d per ton mile for first class, 1/8d for second class and 1/- for third class.³⁴⁶ These rates compared unfavourably with Nigeria's 9d, 6d and 3d per ton mile for goods traffic and 9d, 6d and 4d per ton mile on the Sierra Leone railways.³⁴⁷ It should be recalled, however, that construction costs were higher on the Gold Coast.³⁴⁸

Furthermore, the Ashanti Goldfields Agreement of 1901, under which the western line was extended to Kumasi, stipulated that rates were not to fall below a minimum average of 15d per ton mile.³⁴⁹ The average for 1903 was 19.69d per ton mile,³⁵⁰ but by the following year it had fallen to 15.06d because of a growing traffic in 'bush produce', which was charged at low rates.³⁵¹ At 15.06d per ton mile, the railways could not revise rates without contravening the Ashanti Goldfields Agreement. Consequently, the authorities were keen to terminate the agreement and allow railway officials a free hand in tariff policy. This became all the more urgent because the administration was under pressure to reduce rates. After much wrangling, the agreement was finally revoked in April 1905.³⁵²

As early as 1903, the London Chamber of Commerce had made representations to the Colonial Office that not only should raw materials for export be charged at a low rate, but also capital imports, such as machinery and boilers for the mines, because this equipment boosted productivity. They argued that government personnel and stores, which were charged at the cost of conveyance under the Ashanti Goldfields Agreement, should attract the same rates as public traffic because the administration had already reaped the political and administrative benefits of the railways.³⁵³ In the following year, thirteen mining companies banded together to press the Colonial Office for rate reductions, especially on fuel. They argued that the existing rates of 5d

per ton mile for coal and £2 per truck load of firewood (distance unspecified) were too high and demanded that coal be carried at 1d per ton mile and the firewood rate be halved. The mines threatened to withhold all shipments from London until their demands were met.³⁵⁴

The official response was mixed. The consulting engineers warned that if coal were carried at 1d per ton mile, the railways would suffer great losses; it would even be unprofitable to carry it for 1½d per ton mile.³⁵⁵ The general manager argued that ocean rate charges were the problem and not railway rates. The more the railways cut rates, the more the shipping companies would take advantage to increase theirs. Furthermore, he argued, firewood tariffs could not be reduced because firewood loads caused wear and tear and necessitated Sunday labour, which was paid at a higher overtime rate.³⁵⁶ Governor Rodger's response was, however, to assure the mining companies that their interests would be promoted as far as possible by cheap railway rates as this was necessary for the districts.³⁵⁷ The Governor also cautioned that the intention was not to subsidise the mines. Although the administration might be willing to consider employing differential rates involving the cross-subsidisation of one type of traffic by another in order to promote particular industries, preferential rates would not fall to levels that were considered 'uneconomic'. Subsequent developments, however, were to prove otherwise.

Pressure also came from head-loading competition. Broadly speaking, there were two aspects to this: competition over short distances was met by the introduction of 1d per mile day market return tickets in 1904 to encourage the use of the railways by the petty traders who were using the tracks as footpaths; and long-distance competition, especially in spirits and rubber, on the routes to and from Ashanti. Ashanti chiefs and traders were sending their carriers down the coast with rubber to return with alcoholic spirits, which they carried at 4/- per case of twelve bottles as against 12/- charged by the railways. Consequently, European traders complained that they were unable to compete with their African counterparts in the Ashanti and Northern Territory markets. Besides, the revenue prospects of the railways were impaired. Of 77,016 gallons of gin imported into Sekondi in 1904, only 18,300 gallons were carried by rail, the rest was carried by head-loading.³⁵⁸

One of the earliest attempts to counteract competition from long-distance head-loading and to attract traffic onto the railways was through the establishment of traffic agencies (working on a commission basis), which

collected goods and transported them by carrier or cart to the railways. Some of the most important agencies were located at Asafo (Cape Coast–Kumasi trade route), Atebubu (Ashanti–Volta River trade) and Sefwi to collect rubber and palm produce that went to the ports of Saltpond and Cape Coast. The agencies quoted through-rates from the points of collection to the final destination,³⁵⁹ and although they were effective in increasing railway traffic, tariffs remained the most crucial factor in traffic administration.

In July 1905, railway tariffs were radically restructured and a new schedule was introduced (see Table 9.2). Apart from periodic alterations, the basic features of the new tariff structure remained in place until 1930.

Perhaps the most important feature of the new policy was a general reduction in rates, which was achieved by lowering the rates of all goods by one class. The principle of a taper on rates (the greater the distance the cheaper the rates) was also introduced to promote long-distance traffic.

Table 9.2 The Schedule of Rates Introduced in 1905

Class	1–50 miles		51–100 miles		100–150 miles		151– miles	
	s	d	s	d	s	d	s	d
Special Class I rates: brandy, gin, wine and other spirits	3	9	3	9	3	9	3	9
Class I	2	6	2	3	2	0	1	9
Class II	2	0	1	8	1	3	0	10
Class III	1	3	1	0	0	9	0	6
Class IV	0	5	0	4½	0	4	0	3½

Source: General Manager, *Railways Report*, 1905, 25

Goods that weighed little but were bulky were charged at a higher rate than heavy, small volume goods. Goods were also charged according to ‘what the traffic can bear’. That is to say higher-value goods, such as bullion or perfume, attracted higher tariffs than bulky, low-value goods, such as timber. Perhaps the most striking application of the principle of differential rates was the reduction in rates for mining and mercantile interests. Rates on coal were reduced to 8/- per ton for the first 50 miles, and 1d per ton mile beyond that, and firewood rates were halved from £2 to £1 per truck, whilst non-mining firewood traffic attracted the standard Class V rate.

Special low rates were introduced for direct shipment of rice, sugar, cotton goods and other imported provisions from Sekondi to Kumasi. The aim here was to promote the activities of the newly established expatriate

trading firms in Ashanti and, to a lesser extent, the Northern Territories. Finally, special low differential rates were introduced for 'Down' (export traffic), which had hitherto been conspicuously absent on the railways. In 1904, the average carrying capacity of a train was 16–17 tons and on this basis it was calculated that trains were loaded up to 36.97 per cent of their capacity in the 'Up' direction as against a mere 8 per cent for 'Down'.³⁶⁰ To remedy this situation, foodstuffs and other export produce in the 'Down' direction were charged at lower rates.

But how does one explain severe competition from head-loading of spirits and the fact that this traffic remained the most highly rated on the railway, and to which the taper on rates did not apply under the 1905 tariff changes (see Table 9.3)? The answer is that the revenue needs of the railways were constrained by a long-standing agreement among the colonial powers to discourage alcohol consumption by the imposition of high customs and railway tariffs. Thus, although railway management included rate reductions on spirits in the 1905 proposals, the Colonial Office was reluctant to approve it.³⁶¹ It was not until 1906 that a compromise was reached, whereby a 25 per cent reduction was introduced on the condition that the commodity would not find its way to the Northern Territories,³⁶² presumably because of the desire to use the region as a labour reserve.

In spite of these changes, the issue of railway rates remained alive. The activities of the expatriate interests – especially the mining companies – ensured this, for their interests conflicted with management's perception of sound commercial principles. In fact, like financial administration (see Chapter 8), tariffs on mine traffic resulted in a three-way conflict between railway management, the colonial administration and the Colonial Office. Although rates on coal had been reduced and on firewood halved in July 1905, this concession did not satisfy the mine owners, who argued that nothing less than a flat 1d per ton mile for coal was acceptable.³⁶³ But the consulting engineers reiterated that further reductions would be uneconomical.³⁶⁴

In December 1905, under constant pressure from the expatriate lobby in the legislative council, the Governor ordered management to introduce rebates on coal traffic.³⁶⁵ Nothing immediately came of this. The general manager insisted on guarantees from the mines that specific volumes of traffic would be forthcoming before the matter could be considered.³⁶⁶ In response, the tariff lobby renewed its pressure on the Colonial Office. Railway rates were discussed in the British Parliament in 1907, where it was

pointed out that they were higher in the Gold Coast than in any other colony. Although the Secretary of State for the Colonies rebutted such arguments by pointing to the Gold Coast's higher construction costs, he hinted that rate cuts were in the pipeline.³⁶⁷

In fact, by 1909 the issue had resulted in the establishment of a joint Western African consultative committee comprising representatives of the West African mining and commercial lobbies, the Colonial Office and the Crown agents. The influence of business interests over colonial policy drew criticism, one member of the Colonial Office staff tersely remarking that 'in adopting this method we fly in the face of all previous experience, and adopt all that has been found to work badly many years ago'.³⁶⁸ Nevertheless, with the establishment of this committee, the railway managers lost control over rating policy. From now on, their influence was limited to vociferous, but ineffective, attacks on decisions made in London with little prior consultation with management.

In 1910, the general manager complained that coal was carried at a 'positive loss' because of generous rebates granted to the mining companies.³⁶⁹ By the following year the railways were, for the first time, able to arrive at an approximate tonnage of firewood carried to the mines: 81,364 tons, which represented 44.38 per cent of total goods traffic. In terms of revenue, however, the traffic produced a mere £3,523, which represented only 1.6 per cent of gross goods receipts. Firewood traffic was both difficult and expensive to handle, involving the laying of several miles of shunting tracks along the main lines, and coal required special port facilities. Consequently, management argued that 'uneconomic rates' had been imposed.³⁷⁰

Despite their concern, 1912 saw yet another general reduction in rates for goods traffic, fuel, specie and bullion for the mines, as well as the introduction of privilege tickets for expatriate mining and mercantile employees, as well as ministers of religion.³⁷¹ The railway managers objected. They argued that lower rates did not necessarily lead to higher demand and so the railways did not benefit from any economy of scale.

With the outbreak of war in 1914, the administrative infighting that had characterised tariff policy abated, although some important changes did occur. The Imperial Government's financial demands on the Gold Coast meant that the colony had to find ways of broadening its revenue base. Customs tariffs had been increased just prior to the war and, in any case, the prospects of customs revenue depended on the availability of shipping

capacity over which the authorities had little control. Railway rates, on the other hand, had been considerably reduced in the years before the war and although railway revenue also depended to some extent on foreign trade, it was considered more reliable than customs.

Consequently, the railways were expected to satisfy the financial needs of the metropolitan war economy. A 15 per cent war surcharge was imposed on all passenger traffic and imported goods, while cocoa exports attracted a 50 per cent tax.³⁷² Significantly, coal, firewood and general mining traffic were exempted from the surcharge. The results can be seen in the wartime financial performance of the railways.

Gross receipts more than doubled, from £383,009 in 1914 to £737,362 by 1920, producing net revenues of £174,065 and £365,309 respectively. More importantly, the higher rates did not inhibit the growth of traffic. On the contrary, total goods tonnage increased from 258,600 tons in 1914 to 371,400 tons in 1920, while the number of passengers carried rose from 527,001 to 1,334,286. Cocoa, which bore the brunt of the tariff increase (50 per cent), nearly doubled from 52,000 tons in 1913 to 92,000 in 1917.³⁷³

The important point to note is that, in the period up to 1920, the railways enjoyed a near-monopoly. Consequently, rates were influenced not by competition from alternative forms of carriage or by sound commercial principles, but by the demands of the expatriate mining and mercantile interests and the needs of the British war economy. These favourable circumstances, however, were short-lived. During the 1920s, tariff policy moved onto new grounds. The issue was no longer confined to rate levels, but now included the need to take administrative action in order to safeguard the interest of the railways against competition from road traffic.

Administrative Actions

On the Gold Coast, motor transportation initially developed slowly. The first motor vehicle in the colony was a paraffin-fired car obtained in 1902 for the use of the Governor. However, the car was never used. Finally, during a clean-up campaign in 1908, it was dumped in the sea.³⁷⁴ By 1908, a few lorries had been imported but it was not until the First World War that motor transport developed on a significant scale in response to the high rates and poor maintenance on the railways and the introduction of light American Ford lorries.³⁷⁵

Although a Roads Department of the Public Works Department was established in 1910 to undertake the systematic reconstruction and bridging of main trunk roads, very little had been accomplished by the time the war broke out and caused government expenditure on roads to be 'reduced to vanishing points'.³⁷⁶ Thus before 1920, any progress made in road building was due mainly to the efforts of chiefs and their subjects, especially in the cocoa-producing areas. Road building by chiefs and prominent cocoa farmers had begun in 1908 when several hundred miles of roads were constructed in the Eastern and Central Provinces.³⁷⁷ By 1920, no less than 1,300 miles of non-government roads had been completed in the colony (not including Ashanti and the Northern Territories).³⁷⁸ Because these roads were built independently as and when they were felt to be necessary, the system that developed did not follow government policy, which stressed that roads were to complement the railways rather than compete with them.³⁷⁹ By the early 1920s, the railways were under threat from motor traffic.

Road competition raised issues related not only to railway rates but also to the nature of railway financial policy. One aspect of the dilemma was whether motor transport, which was partly in the hands of European merchants but, to a larger extent, controlled by Africans, should be allowed to compete with, and possibly run down, a government railway system financed by loans raised on the London money market. Here a conflict of interests is perceived between private, mainly indigenous, capital and expatriate finance capital, as well as the Colonial Government's needs for revenue. In 1922, Governor Guggisberg was explicit:

The critics of railway rates appear to consider that no profits should be made at all on government railways. My opinion is that the profits should be reasonable, but I entirely disagree that no profits at all should be made in a country whose railways have been constructed by money borrowed from stockholders.³⁸⁰

Clearly, the administration was committed to protecting the interests of the railways. At this time, Takoradi was under construction and the administration had to ensure that the railways would carry maximum traffic to the harbour if it was to be viable (see Chapter 4).

In 1924, the government set up a special Roads Department with the aim of reorganising the road network in the colony and Ashanti.³⁸¹ The department's efforts resulted in the infamous 'road gaps' policy, under which

gaps were deliberately maintained in 'strategic portions' of the road system to prevent lorries running on them. The nature, extent and unpopularity of the policy were well illustrated by the general manager:

The policy is intensely unpopular with the unofficial communities, distasteful to the administration staff, and I trust that you will agree that it should be abandoned. Admitting fully that it is the duty of the government to see that its railway, on which some £8 million of capital have been spent are not allowed to become an undue burden on the tax payer it cannot, I think, be contended that government can properly continue to bolster up railway traffic by retarding the normal development of cheap communications . . . a policy of road gaps which prevents the development of normal connecting roads is, in my opinion, indefensible.³⁸²

The measure also proved futile in curbing motor competition. This emerges from the general manager's account of how gin was transported to Kumasi in 1925:

Gin for Kumasi is being lorried up the Prahsu road to Brofoyedru, headloaded to Fomena over the three miles road gap, lorried from Fomena to Akrokeri, railed from Akrokeri to Bekwai, and then lorried to Kumasi.³⁸³

Following the general manager's criticism, the policy was overturned. Instead, certain traffics were excluded on specified roads. The aim was to allow the lorry freighting of passenger and ordinary foodstuffs and imported provisions, but not of cocoa and spirits, which were considered vital to the revenue needs of the railways.³⁸⁴

The railway manager's response to motor competition was a reduction in railway rates. But the issue was no longer the rates to be borne by certain types of goods on the railway system as a whole, but rather the need to introduce differential rates between the three principal lines to reflect the geographical variations in motor traffic competition (Table 9.3).

Table 9.3 Rates of Cocoa Traffic on the Railways, Average per Ton Mile (pence, selected years)

Year	Western Line	Eastern Line	Central Line
1922	7.87	7.87	na
1923	7.88	5.45	na
1927	7.92	5.00	na
1930	7.91	4.45	1.967

Source: *Railway Revenue Committee*, 32

The system that faced the most severe competition was the central line, where the roads preceded the railway, the general manager commenting that they were threatened by ‘established competition’ (see Chapter 4). Although rates were cut in order to attract traffic to Takoradi, the payment of harbour dues at the port proved to be a disincentive, since ships continued to call at the Central Province surf ports where no dues were charged. The closure of the surf ports, which were tapping the lorry-borne traffic of Central Province, was considered but abandoned because of expatriate mercantile and African opposition.³⁸⁵

Competition between road and rail, particularly for cocoa traffic, was proving to be unequal on the eastern and central lines, and this raised questions about the future profitability of the Gold Coast railway system.

Efficiency

Efficiency can be classified into conveyance of passengers and carriage of goods. Table 9.4a shows that the ratio between the numbers of passengers carried and the haulage capacity of coaches generally deteriorated over time. Apart from the years immediately following the war, first class carriages rarely took more than 15 per cent of their carrying capacity. Although second-class coaches were fairly well loaded during the post-war recovery, the highest level being 65.10 per cent in 1920, a decline set in. The ratio between the numbers of passengers to carrying capacity quickly dwindled to a mere 5 per cent by 1925–26, after which it settled at around 9 per cent. Third class carriages were often highly loaded. From 87.8 per cent of carrying capacity in 1915, loading rose to above 100 per cent during the post-war boom. Although the position later reversed, the number of passengers conveyed rarely fell below 45 per cent of capacity.

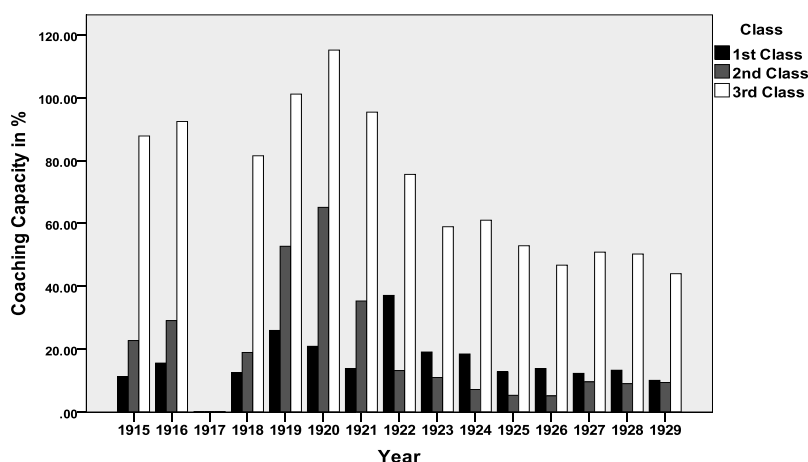
Table 9.4a Percentage of Freight on Capacity Hauled, Average per Vehicle Mile for Coaching Traffic

Year	First class	Second class	Third class	Total
1915	11.22	22.72	87.80	121.74
1916	15.56	29.07	92.40	78.28
1917	N/a	N/a	N/a	N/a
1918	12.51	18.94	81.50	68.77
1919	25.95	52.72	101.12	97.45
1920	20.90	65.10	115.12	101.85
1921	13.85	35.31	95.38	80.23
1922–23	37.09	13.18	75.58	66.05
1923–24	19.08	10.96	58.93	51.81
1924–25	18.45	7.16	61.01	52.05
1925–26	12.77	5.32	52.88	44.09
1926–27	13.83	5.13	46.71	40.33
1927–28	12.29	9.59	50.85	45.56
1928–29	13.29	9.01	50.25	45.31
1929–30	10.07	9.38	43.99	39.62

Source: General Manager, *Railways Report*, 1915–1920/30

Statistically, first class starts at 37.1 per cent in 1922 and then decreases significantly ($p = 0.018$) by an estimated linear average of 2.8 per cent per year to 10.1 per cent in 1929, while second class starts at 13.8 per cent in 1922 and shows an insignificant decreasing trend ($p = 0.45$) down to 9.4 per cent in 1929. By contrast, third class starts at 75.6 per cent in 1922 and declines significantly ($p = 0.005$) by an estimated linear average of 3.6 per cent per year to end up at 44 per cent only in 1929 (Figure 9.1).

Figure 9.1 Coaching Capacity, 1915–29



In summary, the first and second-class carriages were run at well below capacity, while third class was well used. As Aldcroft aptly points out, ‘economical methods of handling traffic are crucial for improving railway operating efficiency’.³⁸⁶ But, by the 1920s, the Gold Coast railways were operating with excess passenger capacity, most of the inefficiency being explained by under-utilisation of first and second class carriages. This elicited managerial comment, first during the war years when rolling stock was in short supply,³⁸⁷ and especially during the 1920s.³⁸⁸ Combining the two classes was given serious thought, but never implemented because of opposition from the white community, who insisted on racial segregation.

By contrast, the handling of goods traffic improved over time (see Table 9.4b). In 1914, the average number of tons in a loaded train stood at 48, but by 1928–29 this had more than doubled to 116.36 tons. The average carrying capacity of goods vehicles increased from 16.9 tons in 1915 to 22.48 tons in 1929–30, while the ratio of freight to carrying capacity rose from 30.88 per cent in 1916 to over 40 per cent throughout the 1920s (see Figure 9.2). This was largely the consequence of the reconstruction of the western line, which made it possible to run locomotives and rolling stock of heavier capacities.

Table 9.4b Goods Traffic: Average Carrying Capacity of Vehicles and Ratio of Freight to Carrying Capacity

Year	Carrying capacity of vehicles (tons)	Ratio of freight to carrying capacity	Average tonnage in a train
1915	16.96	38.59	48
1916	17.08	30.88	43
1917	N/a	N/a	N/a
1918	15.97	35.48	39
1919	N/a	N/a	N/a
1920	16.0	43.48	49
1921	17.0	44.03	61
1922–23	19.0	44.18	67
1923–24	21.09	40.94	75
1924–25	21.73	43.0	84
1925–26	21.96	45.11	98
1926–27	21.86	44.18	105
1927–28	21.9	42.71	108.52
1928–29	21.84	41.06	116.36
1929–30	22.48	40.06	109.62

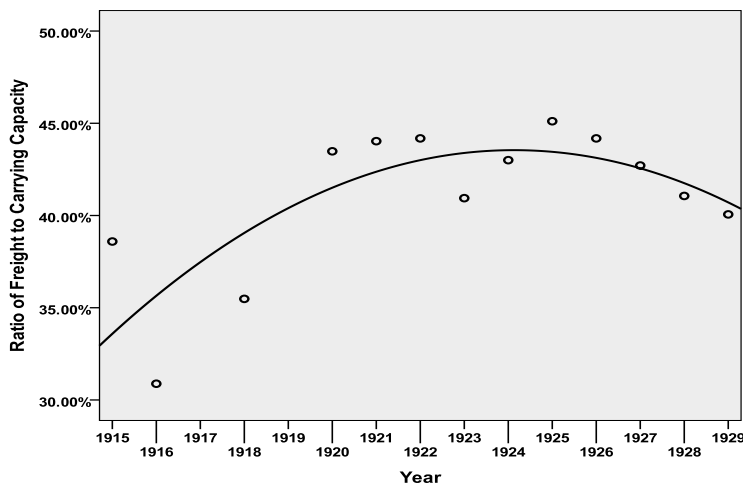
Source: General Manager, *Railway Reports*, 1915–1929/30

Regression analysis shows linear and significant ($p < 0.001$) trends for both freight capacity and tons per train mile over time, with an estimated increase of 0.5 and 6 ton increase per year respectively. Ratio of freight to capacity however is not linear but quadratic, following a significant ($p <$

0.001) parabolic curve (first increasing and then decreasing; see Figure 9.2), but follows this curve very closely (i.e. this parabolic trend is significant, $p < 0.001$), reflecting the incidence of motor transport competition by 1922/23.

A related issue about efficiency is the relative importance of goods as opposed to coaching traffic (see Table 9.5). In 1906, goods traffic receipts amounted to £139,915 and, apart from one or two slight fluctuations, continued to grow steadily until it reached £917,508 in 1928–29 and never accounted for less than three-quarters of gross revenues. It is therefore not surprising that tariff levels of goods traffic dominated the debates over rating policy.

Figure 9.2 Time Trend of Ratio of Freight to Carrying Capacity



The importance of goods receipts reflects the Gold Coast's agricultural development, especially cocoa farming. Agricultural traffic provided some cross-subsidisation to the mining sector. This is illustrated by the principal goods traffic transported on the railways in 1926 and its relative contribution to gross goods receipts (see Table 9.6). Five commodities together constituted more than 70 per cent of the total tonnage hauled by the railways. They generated more than 60 per cent of the gross receipts. The figures show that although cocoa tonnage amounted to just over half that of manganese, cocoa produced as much as 47.56 per cent of the gross receipts compared to

11.55 per cent for manganese ore. Similarly, firewood for the mines, which amounted to 13.84 per cent of gross tonnage, produced a mere 1.39 per cent of the total revenue. Admittedly, firewood and manganese ore were short-haul loads, but even so, it can be seen from the average rates that whereas cocoa attracted 6.7d per ton mile and native foodstuffs 3.25d, manganese and firewood attracted a minimal rate of 2d and coal a mere 1.7d per ton mile. Not surprisingly, when W.G.A. Ormsby-Gore, the Parliamentary Under-Secretary of State for the Colonies, visited the colony in 1926, he emphasised the importance of cocoa to the railways' revenue: 'Cocoa and cocoa alone enables the railway to pay its way.'³⁸⁹ For that reason he was willing to support administrative actions to protect the railway's cocoa traffic from road competition.

Table 9.5 Railway Earnings

Year	Goods receipts (£)	Proportion of goods receipts to gross earnings	Coaching receipts (£)	Proportion of coaching receipts to gross earnings
1906	139,915	81.71	28,130	16.42
1907	128,257	77.14	31,989	19.24
1908	118,718	78.40	32,452	21.43
1909	146,824	79.19	35,886	19.35
1910	204,303	80.65	45,181	17.83
1911	220,113	76.98	61,872	21.64
1912	237,233	75.22	73,901	23.43
1913	263,874	73.18	90,445	25.08
1914	281,781	73.57	92,274	24.09
1915	330,029	73.78	109,000	24.37
1916	359,974	73.47	121,199	24.74
1917	366,397	74.14	115,703	23.41
1918	327,195	71.66	114,317	25.04
1919	489,330	72.78	166,143	24.71
1920	520,458	70.59	197,652	26.81
1921	511,991	72.51	177,835	25.19
1922-23	655,015	74.61	187,744	21.39
1923-24	771,830	76.26	203,348	20.04
1924-25	826,315	77.47	202,079	18.94
1925-26	850,238	77.13	214,703	19.47
1926-27	894,220	77.32	224,031	19.37
1927-28	904,817	74.42	268,441	22.08
1928-29	917,508	73.82	281,729	22.67
1929-30	866,665	73.26	268,885	22.73

Source: General Manager, *Railway Reports*, 1906-1929/30

It was Africans, more especially traders and the labouring classes, who bore the brunt of railway charges, as can be seen in the coaching receipts (see Table 9.7). Between 1915 and 1928-29 (excluding 1920 and 1922-23), receipts per vehicle mile for first class traffic were generally low, at or below

10d. The position in second class coaching was even worse. From 12.1d per vehicle mile in 1915, receipts rose to nearly 30d in 1920 (largely as a result of the post-war boom) but declined to 6.73d by 1928–29. On the other hand, third class receipts per vehicle mile were already significantly higher in 1915 than those for first and second class. Although third class receipts followed the same general trend over time as first and second class receipts (rising from 42.01d in 1915 to 55.12d in 1920 then falling), they never dropped below 30d per vehicle mile.

Table 9.6 Principal Goods Traffic (1926) and Relative Contributions to Gross Goods Receipts

Commodity	Tonnage carried	Gross tonnage (%)	Receipts	Gross goods receipts (%)	Average rate per ton mile
Manganese ore	273,796	34.36	98,180	11.55	2d
Firewood for mines	110,307	13.84	11,860	1.39	2d
Coal for mines	9,079	1.14	4,992	0.59	1.7p
Cocoa	156,148	19.59	404,403	47.56	6.7d
Native foodstuffs	11,577	1.45	11,963	1.41	3.25d

Source: Governor's Memorandum on Transportation to Honourable Ormsby-Gore, Visiting Parliamentary Under-Secretary of State, 3 March 1926, C.O. 96/663

Statistically, the situation was largely stable, with no relevant time trend observed. Third class dropped significantly ($p = 0.03$) over the years but only by an estimated average of 1d a year. Values for the time trends of the other classes were $p = 0.54$ for first class and $p = 0.10$ for second class. Analysis of variance reveals that the differences between the means are significant ($p < 0.001$) with post-hoc (Scheffe) tests indicating that the differences relate exclusively to the third class (i.e. first and second class do not differ significantly). The third class subsidised the two other classes over the whole of the study period with returns more than triple that of each of the other two classes.

The African traders and workers, the majority of passengers in third class, were subsidising first and second class passengers. Measuring the performance of the railways by total revenues alone misses the extent to which one category of customer contributed more to the growth of revenues than other two.

Table 9.7 Average Receipts per Vehicle Mile (pence)

Year	First class	Second class	Third class	Total
1915	10.48	12.10	42.01	29.31
1916	10.43	12.34	41.09	N/a
1917	N/a	N/a	N/a	N/a
1918	8.12	9.35	40.42	25.98
1919	12.41	14.65	45.38	Na
1920	16.75	29.28	55.12	41.9
1921	10.47	17.18	47.79	34.56
1922–23	17.58	11.26	32.94	26.96
1923–24	9.29	9.59	34.05	23.82
1924–25	9.18	6.61	34.72	21.92
1925–26	9.63	5.7	30.86	20.98
1926–27	9.44	4.84	32.82	22.26
1927–28	9.18	7.74	35.06	23.73
1928–29	9.99	6.73	33.84	8.28
1929–30	N/a	N/a	N/a	N/a

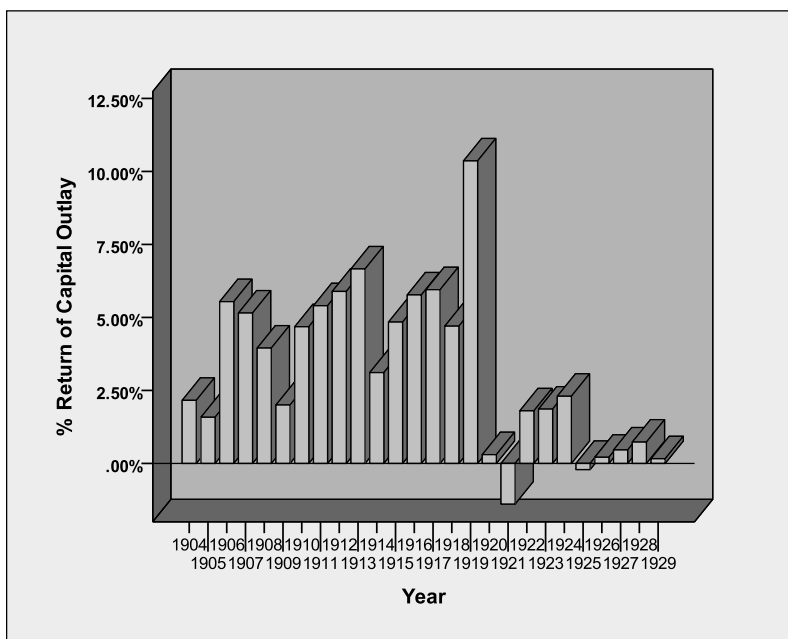
Source: General Manager, *Railways Reports*, 1915–1929/30

Profitability

Because of the way the Colonial Government presented its accounts, the true profitability of the railways was usually misrepresented. Net profits were simply expressed as the difference between gross receipts and working expenses. Such profits, however, ignore the interest payments made by the Colonial Treasury out of general revenue on railway and harbour loans. Once these payments are taken into account (see Table 9.8), it would appear that the profitability of the railways was far less impressive than the accounts and commentators³⁹⁰ would have us believe. The railways were initially fairly profitable. As the figures for the net rate of return on capital outlay indicate, there seemed to be fluctuating but steady growth throughout the first two decades with the net rate of return reaching a peak of 10.3 per cent in 1919.

However, the position deteriorated throughout the 1920s. Not only did the railways make losses in 1921 and 1925–26, but in the years in which they returned profits, the net rate of return rarely exceeded 1 per cent. By the 1920s, the railways had ceased to be ‘the milch cow of a penurious Treasury’.³⁹¹ On the contrary, railway revenues were almost evenly divided between maintenance costs and interest payments on loans to British creditors, leaving a very small profit margin for the colony. Indeed, if one includes on the debit side the pension charges for railway staff, apparent gains become losses; by 1930, pension charges amounted to 2.04 per cent of the gross earnings.³⁹²

Figure 9.3 Percentage Return on Capital Outlay, 1904–29



Statistically, both the proportion of interest charges to gross earnings and the proportion of working expenses to gross earnings showed a significant negative linear relationship, with a net rate of return on capital outlay (both $p < 0.001$ with coefficients of determinations (r^2) of 0.42 and 0.78 respectively). Multivariate regression analyses looking at both effects on net return at the same time revealed standardised partial regression coefficients of -0.74 ($p < 0.001$) for the effect of interests on net return; and -0.29 ($p < 0.01$) for the effect on expenses on net return. The two effects achieved an adjusted r^2 of 0.84 (meaning that not much else played a role in determining the rate of net return). In simple terms, the contribution of interest charges to gross income on rate of net return was 2.5-fold that of the contribution of working expenses. Thus, the observed time trend of diminishing net returns can be mostly attributed to an increasing load of interest payments as opposed to working expenses or any other factor(s) (see Figure 9.3).

Table 9.8 Gross Earnings, Expenses and Interest Charges

Year	Gross earnings	Working expenses	Working expenses to gross earnings	Capital outlay in railway and harbours	Interest charges on capital	Proportion of interest charges to gross earnings	Net profit and loss	Net rate of return on capital outlay
1904	148,096	91,465	61.76	1,098,000	32,940	22.24	23,691	2.16
1905	132,752	82,477	62.13	1,098,000	32,940	24.81	17,335	1.58
1906	171,231	77,257	45.11	1,098,000	32,940	19.24	60,835	5.54
1907	166,257	76,776	46.18	1,098,000	32,940	19.81	56,541	5.15
1908	151,423	75,124	19.61	1,098,000	32,940	21.75	43,359	3.95
1909	185,410	73,914	39.86	2,128,000	68,990	37.21	42,506	2
1910	253,329	84,800	33.47	2,128,000	68,990	27.23	99,539	4.68
1911	285,917	102,119	35.71	2,128,000	68,990	24.12	114,808	5.4
1912	315,392	120,967	38.36	2,128,000	68,990	21.88	125,415	5.89
1913	360,591	149,955	41.59	2,128,000	68,990	19.13	141,649	6.66
1914	383,009	174,093	45.45	3,163,000	110,390	28.82	98,524	3.11
1915	447,294	183,807	41.09	3,163,000	110,390	24.68	153,098	4.84
1916	489,912	197,065	40.22	3,163,000	110,390	22.53	182,457	5.77
1917	494,185	195,474	39.56	3,163,000	110,390	22.34	188,316	5.95
1918	456,574	197,518	43.36	3,163,000	110,390	24.28	148,666	4.7
1919	672,311	234,230	34.84	3,163,000	110,390	16.42	327,691	10.36
1920	737,262	365,309	49.55	7,163,000	350,390	47.53	21,563	.3
1921	706,107	455,249	64.47	7,163,000	350,390	49.62	-99,532	-1.39
1922-23	877,893	398,340	45.37	7,163,000	350,390	39.91	129,163	1.8
1923-24	1,012,081	528,330	52.22	7,163,000	350,390	34.62	133,161	1.86
1924-25	1,066,560	551,733	51.73	7,163,000	350,390	32.85	164,437	2.3
1925-26	1,102,301	568,012	51.53	11,791,000	558,650	50.68	-24,361	-0.21
1926-27	1,156,453	572,882	49.54	11,791,000	558,650	48.31	24,921	0.21
1927-28	1,215,820	603,089	49.6	11,791,000	558,650	45.95	54,081	0.46
1928-29	1,242,947	598,381	48.14	11,791,000	558,650	44.95	85,917	0.73
1929-30	1,183,035	643,712	54.41	11,791,000	558,650	47.22	19,327	0.16

Source: General Manager, *Railways Reports*, 1904-1929/30; Colonial Treasurer, *Treasury Reports*, 1904-1929/30

Despite the growth of operational efficiency and rising revenues, the railways were operating at low levels of profitability by the 1920s. The short era of railway building had ground to a halt. Evidently, motor vehicle transport, mainly used by small-scale African operators, was no match for the government's lopsided configuration of railway routes in terms of flexibility and efficiency. Despite consultancy report after report, especially in the postcolonial era and the associated promises of revamping and even extending the 500-mile railway systems, the entire railway network was temporarily out of operation when this book went to press. In deciding whether the railways have a future in the twenty-first century, it is important that policy-makers do not lose sight of their historical origins and how this might be used in making informed decisions.

The Economic and Social Impact of the Railways

Traditionally, railways have been thought of as a dynamic force in economic development. Max Weber called them ‘the greatest innovation in history’³⁹³ and Joseph Schumpeter argued that American economic history in the second half of the nineteenth century could be treated solely in terms of railway construction and its effects.³⁹⁴ Writing in the 1850s, Karl Marx had foreseen that the construction of railways in India would inevitably result in industrialisation:

You cannot maintain a net of railways over an immense country without introducing all those industrial processes necessary to meet the immediate and current wants of railway locomotion, and out of which there must grow an application of machinery to those branches of industry not immediately connected with railways. The railway system will therefore become, in India, truly the forerunner of modern industry.³⁹⁵

For nearly a century, these ideas were unchallenged, especially as the construction of railways in most parts of Europe and North America had been followed by rapid industrialisation. Thus, to W.W. Rostow, the railways were the ‘leading sector’ in the French, German, American and Russian industrial ‘take-offs’.³⁹⁶

Confronted with a historiography that made large claims for the impact of railways on development, economic historians in the 1960s began to quantify the precise contributions that the railways had made. Using econometric techniques, they were able to pose counterfactual questions. They measured the difference in levels of national output between the actual economies of America, Britain and Russia with railways and hypothetical alternatives without them.³⁹⁷ They were then able to produce data that indicated the ‘social saving’ which accrued to a particular economy through the construction and operation of its railways. Their results challenged the opinion that railways provide sufficiently strong backward linkages to transform entire economies. Thus in Britain, it is argued that the railways did not bring about any structural shifts in economic activity.³⁹⁸

There is no doubt that the social saving concept was important because it calculated the contribution a major innovation makes to economic development. However, there are methodological and conceptual weaknesses in this approach³⁹⁹ as well as other reasons why the social saving concept is not applicable to the Gold Coast railways. First, there are no reliable data on national income for the period under review.⁴⁰⁰ Second, until the development of motor traffic from the 1920s, there were no real alternatives to the railways apart from traditional head-loading.

Writing about Russia, Colin White observed that in a relatively backward economy that is poorly served by natural transport infrastructure, the concept of social saving has failed 'to gather into its net a whole series of significant benefits brought by the railways'.⁴⁰¹ Furthermore, in tropical Africa, railway communications were planned and executed from Europe to serve imperial economic objectives. Consequently, any discussion of the impact of the railways must take into consideration the nature or implications of the type of colonial economy the introduction of the railway system created, rather than the 'social serving' that accrued to the country as a whole.

Finally, the social saving method tends to focus on economic gains. As far as colonial Africa is concerned, the social and political effects of the railways await a thorough study. So to focus on the social savings that accrued is to ignore the less tangible, but far-reaching significance of the railways.

Consequently, although this book adopts the new economic history approach by examining the role of the railways in terms of both backward linkages (consumption of inputs) and forward linkages (as a transport agency), it does not attempt to measure social savings. Instead the influence of the railways on output and employment in commerce and traditional crafts is examined, as well as the impact on urbanisation and public health.

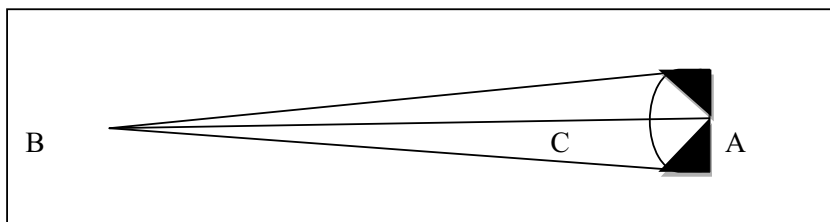
The Scale of Railway Innovation

Two important factors normally determine how a railway changes an economy: the extent to which it reduces transportation costs, and the geographical spread and/or size of the network itself. The greater the mileage, the stronger the forward and backward linkages and the wider the spatial distribution of lower transportation costs. On the Gold Coast, the advantages of lower transport costs were limited by the fact that the system

was not only small in mileage but also confined to the southern half of the country.

From an average of 1 route mile per 584 square miles in 1904, rail density rose to 1 route mile per 184 square miles in 1929–30.⁴⁰² Assuming, as the general manager argued, that the sphere of economic activity covered a distance of 20 miles on either side of the tracks,⁴⁰³ by 1930 just over 20 per cent of the Gold Coast's land surface (including Ashanti and the Northern Territories) was under the direct influence of the railways. However, this is an exaggeration because the sphere of economic activity generally shrinks in proportion to the distance from the coastal terminal (see Figure 10.1).

Figure 10.1 Sphere of Economic Activity



Thus, the proportion of the Gold Coast's total land surface under the direct influence of the railways was very low indeed, perhaps no more than 10 per cent. The size and spread of the network would affect both the nature of the railway's demand for inputs and the spatial distribution of lowered transport costs.

Backward Linkages: A Stimulus for the Gold Coast Economy or Markets for the Metropolitan Industries?

Did railways on the Gold Coast make any significant demands for inputs from the indigenous economy during the first three decades of the twentieth century? Table 10.1 indicates the value of materials and equipment purchased by Railways Department for construction and maintenance between 1906 and 1929–30 (excluding the construction of the western line in 1895–1905). Out of a total of £6,255,043 worth of stores, only £271,211 (about 4 per cent) went on materials purchased locally; £459,487 (7 per cent) was the cost of coal imports from Nigeria, while the remaining £5,494,345 (88 per cent)

was the cost of materials purchased in the United Kingdom. In fact, given that the 'local' purchases included imported items such as cement, iron sheets, nails and even sawn timber, the proportion of railway inputs supplied directly by the indigenous economy was nugatory.

Wood for fuel was the main item of railway consumption that could be regarded as a product of the local economy. Initially, the railways relied exclusively on imported coal from Britain, but by 1904 they had started burning firewood as well. Wood fuel was much bulkier and less efficient than coal, but it was cheaper – 10d per train mile compared to 40d for coal.⁴⁰⁴ Although imported coal was always used, especially on the eastern line where suitable firewood was less readily available, the evidence suggests that wood accounted for most fuel consumption. By 1919, the railways were burning 14,000 tons of firewood annually compared with 2,000 tons of coal. The demand for wood fuel by the railways, and to an even greater extent the mines, caused environmental damage. Consequently, although the locomotives continued to burn wood, there was a move towards a greater reliance on imported coal from Nigeria from 1920 onwards.⁴⁰⁵

Although the Gold Coast had abundant timber resources, no attempt was made to establish a railway sawmill for processing timber for construction purposes. Instead, sawn timber was imported directly from Britain or purchased locally from merchants who had imported it. Thus, it was not until wartime import restrictions were imposed that the idea of establishing a railway timber-processing mill was broached.⁴⁰⁶ Nothing immediately came of the proposal. Not only was the Railway Department deprived of funds at that time, but the tools and machinery that would be needed were virtually unprocurable. It was not until 1922 that machinery for timber processing was installed at Sekondi, by which time the construction of most of the network had been completed. On the other hand, the Railway Department did develop its own granite quarries from the very start of its operations, one at Sekondi and another at Weija near Accra, which provided ballast and boulders for track construction and maintenance, as well as for harbour works.⁴⁰⁷

In summary, just about everything the railway system needed – skills, locomotives, permanent way materials, coaches, workshop machinery and tools and, to a lesser extent fuel and timber – was imported from the United Kingdom. The expenditure was substantial – £5,500,000 (excluding the construction of the western system). Thus, the direct benefits of railway construction and operation did not accrue to the Gold Coast economy but to

the metal and engineering industries of the metropolis. Nor did the demand for railway inputs lead to the establishment of 'those branches of industry not immediately connected with the railways'.⁴⁰⁸

Part of the problem was that, prior to the construction of the railways, there were no industries in the Gold Coast capable of meeting the railways' requirements for materials. There were no coal deposits, and iron ore and manganese were not discovered until the war years. Furthermore, the rail network was too small to warrant the establishment of heavy metal industries.

Nevertheless, as the railways were intended to serve specific imperial economic objectives as much as they were intended to stimulate the Gold Coast economy, the economic self-interest of the metropolitan country ensured that the Gold Coast railways would only buy British goods. In 1893, Chamberlain assured the British Parliament that the construction of the railways would stimulate British industry and provide jobs for the unemployed because 'all the work will be done in this country'.⁴⁰⁹ Indeed, once construction was authorised two years later and the Crown agents charged with the purchase of materials, the Colonial Office stipulated that orders were not to be placed outside the UK.⁴¹⁰

To this must be added the self-interest of the Crown agents. As builders of Crown Colony projects, the office of the agents expanded. In 1900, the office conducted about £9,500,000 worth of business for the colonies; five years later this had nearly trebled to £26 million and the staff had expanded from 33 in 1881 to 200 in 1908.⁴¹¹ Their additional responsibility, Dummett argues, gave the Crown agents 'a vested interest and a generating force of their own'.⁴¹² Consequently, neither they nor the Colonial Office saw the benefit of encouraging local industries that could supply substitutes for imported materials.

Opportunities existed within the colony to meet the railways' demand for bricks, drainage pipes and tiles and, by 1913, the department had started manufacturing its own bricks. The response from London, however, was hostile. The railway management was instructed to abandon the projects, because it 'hardly comes within the scope of a Railways Department'.⁴¹³ The real reason for the hostility was of course that bricks and tiles were readily available for import from Britain. Similarly, during the war when railway materials were unavailable in the UK and the local administration proposed making purchases from the United States, the Colonial Office objected because it would be 'prejudicial to [foreign] exchange'.⁴¹⁴ In fact, some of the

problems encountered by Stewart and McDonnell in the construction of Takoradi can be attributed to this conflict of interest (see Chapter 4).

Table 10.1 Value of Materials and Equipment Purchased for Railway and Harbour Construction and Maintenance, 1906–1929/30 (£)

Year	Total Stores	Local purchases	Udi coal	UK purchases	UK purchases % of total stores
1906	46,902	10,040	—	36,862	79
1907	26,798	7,134	—	19,664	73
1908	17,593	8,210	—	9,383	53
1909	27,901	9,088	—	18,813	67
1910	27,366	7,557	—	19,807	72
1911	60,213	10,029	—	50,184	83
1912	74,270	17,732	—	56,539	76
1913	141,889	26,568	—	115,321	81
1914	N/a	N/a	—	N/a	N/a
1915	187,417	6,079	—	181,338	97
1916	128,240	12,562	—	115,678	90
1917	N/a	N/a	—	N/a	N/a
1918	73,032	6,464	—	66,568	91
1919	211,417	9,081	—	202,336	96
1920	933,786	19,558	—	914,228	98
1921–22	1,742,276	3,323	—	1,710,953	98
1922–23	677,665	16,556	—	661,109	98
1923–24	271,665	10,596	11,883	249,206	92
1924–25	334,950	13,445	57,576	263,929	79
1925–26	310,133	8,825	63,120	238,188	77
1926–27	148,096	6,802	65,035	6,259	51
1927–28	257,740	9,795	75,590	174,355	68
1928–29	271,226	11,086	81,397	178,743	66
1929–30	254,229	12,702	106,886	134,641	53
Total	6,225,043	271,211	459,487	5,494,345	88

Source: *Gold Coast Blue Books*, 1906–1929/30

The pattern of expenditure was reproduced in that of manpower. Just as the direct benefits of railway demands for material inputs accrued to the British economy, so too was the lion's share of railway construction and operation wage income spent on European imports. As we have seen, managerial and supervisory positions were filled exclusively by Europeans. More importantly, the cost of maintaining them was generally high; by 1920 the salaries of European workers, constituting only 3.75 per cent of the workforce, accounted for 44.33 per cent of the total wage bill. Thus, the largest part of the wage bill went to Europeans, who were likely to buy imported consumer goods and foodstuffs as well as repatriated salary savings homes. Even the modest per capita income of African railway workers failed to generate a demand for local goods and services because the majority of

construction workers received part of their wages in kind. Moreover, as the consulting engineer's 1904 report stated, 'expenditure in the Colony consists principally of wages paid to labourers, who spend the majority of it through the merchants on the coast upon the purchase of European goods'.⁴¹⁵ Finally, a proportion of the African wage income was lost to the colony through repatriation of savings by labourers who had been recruited from Nigeria and Sierra Leone.

Thus, contrary to Chief Commissioner Watherston's promise to Northern Territories chiefs in 1907, cash earnings by northern labour on the railways and mines in the south did not lead to the establishment of 'large-scale commercial agriculture in the North'.⁴¹⁶ Instead, the benefits of railway wage labour accrued mainly to consumer industries in the United Kingdom.

Forward Linkages: Production for Domestic Needs or Extraction of Raw Materials for Metropolitan Industries?

Whereas the Gold Coast economy was scarcely touched by backward linkages (input consumption) from the railways, the provision of transport facilities did have a strong impact on economic activity. Once in operation, the railways offered substantial advantages over traditional human loading of goods. As well as being more readily available, faster and more reliable, railways significantly reduced transport costs. Table 10.2 shows costs in 1903 and 1922–23. Railway charges in 1903 not only represented substantial reductions when compared with head-loading, but transportation costs in general were reduced over time.

Table 10.2 Comparative Transport Costs, 1903 and 1922–23

Type	Per Ton Mile
Railways (1903)	1/—2/6d
Head-loading (1903)	15/—24/-
Railways (1922)	3d—7½d
Lorry traffic (1922)	2s 9d
Head-loading (1922)	5/—6/-

Sources: Colonial Office to London Chamber of Commerce, 6 November 1903, PRO: CO 96/42; Governor's Annual Address, *Legislative Council Debates*, 1923–24, 78

By reducing transport costs, the railways brought about significant savings in the economy. Furthermore, labour that would have been used to

transport goods was released for use in other economic activities. Although these savings are difficult to assess, Lugard's estimate that a train of average capacity will do the work of 13,000 carriers at one-twentieth the cost⁴¹⁷ gives some idea of the superiority of railways over head-loading.

As to the role and impact of the railways in the economy, opinion is strongly divided. Allan McPhee, following the imperial tradition, stresses their 'diffusionist' role: 'the railways open up trade wherever they go', and 'the expansion of the Gold Coast cocoa industry is simply the other side of the railways expansion'.⁴¹⁸ In his opinion, the railways were indispensable to the Gold Coast's economic development and stimulated both internal and external trade, especially the cocoa industry. Rhoda Howard, writing in the dependency tradition, argues that the railways provided far too few opportunities for internal trade and merely acted as funnels syphoning the country's raw materials to Europe in return for manufactured goods.⁴¹⁹ Like McPhee, Howard takes for granted the importance of the railways in the expansion of external trade, but is pessimistic about the possibility of sustainable development following export-led growth.

Geoffrey Kay's argument that transportation policy favoured expatriate mining capital, as opposed to indigenous capital, introduces a third dimension. Central to his argument is the assertion that the railways were irrelevant to the expansion of the cocoa industry because neither the eastern nor the central line (both of which the administration claimed were designed to serve that industry) went through the cocoa belt. Apart from the lower stretches of the eastern line, all the principal lines only fringed the cocoa-growing areas.⁴²⁰ As far as Kay is concerned, the main beneficiary of railway communication was the expatriate mining sector.

The problem with these three views is that, like opinions on the selection of routes (see Chapters 2–4), the evidence on which the conclusions are based is tenuous, mainly because the writers were not as concerned with the effects of the railways as they were with colonial policy in general.

Gould's study of transportation patterns in Ghana, by contrast, provides a much clearer understanding of the impact of the railways. His claim that the railways mostly promoted import–export trades is supported by a detailed analysis of traffic circulation. He shows the relative importance of the principal lines to the mines on the one hand, and cocoa farming on the other. Thus, the western system had the greatest flow in the 'Up' direction (98 per cent of total traffic in 1904), while the eastern line depended on a heavy export movement to Accra (70 per cent when first opened in 1912),

reflecting the early importance of imported mining inputs on the former and cocoa exports on the latter.⁴²¹

An examination of goods traffic provides one means of evaluating the effects of the railways. Table 10.3 identifies three broad categories of goods traffic between 1905 and 1929–30. Internal traffic was made up of firewood, local foodstuffs, fish and sawn timber. Import traffic comprised coal, machinery, building materials, food staples, spirits, cotton goods and the like. Export traffic comprised cocoa, timber, manganese ore and small quantities of rubber, palm produce and kola.

Looking first at internal traffic, we can see that movements of total tonnage fall into three distinct periods. Between 1905 and 1910, internal traffic was negligible, amounting to a mere 6,000 tons per annum on average. Thereafter, the position improved dramatically; internal traffic rose from 89,600 tons in 1911 to 169,700 tons in 1918. This was followed by a significant decline throughout the 1920s. The proportion of internal traffic carried on the railways was generally low, amounting to no more than an annual average of 15 per cent of the gross goods traffic. Conversely, the proportion of external trade (imports and exports) carried on the railways was always very high. From over 90 per cent between 1905 and 1910, the proportion declined between 1911 and 1920, but rose again throughout the 1920s to between 70 and 86 per cent.

The strength of external traffic rested on the role of exports. Although the tonnage of imports transported grew in quantity, it declined drastically as a proportion of the gross railway traffic, from 87 per cent in 1906 to 15 per cent in 1929–30. This was mainly the result of large export traffic, especially in cocoa and manganese ore during the war. Thus, the decline in the proportion of imports was offset by the huge rise in the tonnage and percentage of export traffic. Other than in 1911–21, when the proportion of internal traffic accounted for an annual average of about 40 per cent of the gross goods tonnage, railway traffic generally reflected a strong bias towards external trade, particularly towards export commodities.

Table 10.3 Internal and External Trade Goods Carried on the Gold Coast Railways, 1905–1929/30

Year	Gross traffic	Internal traffic	Per cent of internal to gross	Imported traffic	Per cent of imported to gross	Exported traffic	Per cent of exports to gross	Total per cent of imports and exports to gross
1904	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
1905	32.2	.4	1	24.8	77	7.0	22	99
1906	47.4	.6	1	41.1	87	5.7	12	99
1907	51.1	.6	1	37.8	74	12.6	25	99
1908	46.2	4.8	10	32.4	70	9.0	19	90
1909	55.5	5.7	10	46.6	84	3.4	6	90
1910	82.4	6.3	8	72.1	88	4.0	5	92
1911	182.2	89.6	49	85.0	47	7.6	4	51
1912	197.4	83.2	42	89.3	45	24.9	13	58
1913	231.0	74.9	32	108.8	47	47.3	20	68
1914	258.6	91.5	35	118.2	46	48.9	19	65
1915	269.2	115.7	43	92.1	34	61.4	23	57
1916	297.8	134.8	45	99.9	34	63.1	21	55
1917	335.1	151.9	45	69.7	21	113.5	34	55
1918	316.4	169.7	54	45.9	14	100.8	32	46
1919	347.9	143.9	41	54.7	16	149.3	43	59
1920	371.4	145.0	39	81.2	22	145.2	39	61
1921	359.6	155.9	43	77.9	23	123.8	34	57
1922–23	439.1	131.2	30	72.6	16	235.3	54	70
1923–24	595.7	110.8	19	120.2	20	364.7	61	81
1924–25	702.6	123.7	18	136.4	19	442.5	63	82
1925–26	796.9	118.1	15	144.3	18	534.5	67	85
1926–27	805.2	120.7	14	131.7	19	552.8	67	86
1927–28	789.8	128.6	16	141.0	18	520.3	66	84
1928–29	818.8	120.7	15	145.9	19	542.2	66	85
1929–30	932.2	135.8	15	139.3	15	657.1	70	85

(000s of tons, excluding livestock)

Source: General Manager, *Railways Reports*, 1905–29

Railway traffic was largely determined by the growth of the mining sector. In terms of import traffic (see Table 10.4), a substantial proportion initially consisted of machinery, coal and building materials, which were hauled to the mining districts of Tarkwa and Obuasi. Before 1929–30, coal was the most important traffic by weight, though its tonnage, like that of machinery, declined in the long term. From 4,800 tons in 1904, coal traffic expanded steadily to 42,000 tons by 1914 (17 per cent of the gross railway traffic). Mining machinery increased from 1,968 tons in 1904 to 9,050 tons in 1912, while building materials fell from 4,300 tons in 1904 to 2,747 tons in 1907. Thereafter, the volume of import traffic carried to the mining companies declined – coal traffic from over 40,000 tons in 1914 to 2,514 tons in 1918; and machinery traffic from over 9,000 tons in 1912 to 2,459 tons in 1918. This can be explained only partly by wartime restrictions. Much more important was the fact that, by 1912, most of the gold mines had

‘completed the erection of plant and machinery, introduced cost saving techniques, and [have] extended their own firewood tramways’.⁴²² Although coal traffic recovered during the 1920s, it still represented only around a half of the pre-war tonnage.

Table 10.4 Principal Commodities Carried on the Gold Coast Railways (selected years)

Commodities	Tonnage					
	1904	1907	1912	1918	1923/27	1929/30
Building materials (mines)	4,300	2,747	N/a	N/a	N/a	N/a
Machinery (mines)	1,968	4,475	9,015	2,459	1,224	689
Coal (mines)	4,800	13,793	28,834	2,514	11,070	13,033
Firewood (mines)	N/a	N/a	71,995	139,693	97,326	122,618
Imported food staples	1,392	2,084	9,215	2,085	11,266	15,011
Gin and spirits	498	141	2,972	1,351	2,593	2,685
Native foodstuffs	1,047	4,476	11,167	26,728	11,426	868
Export timber	—	11,957	4,105	9,883	10,768	10,523
Cocoa	50	557	20,752	73,254	164,329	139,462

Source: General Manager, *Railways Reports*, selected years

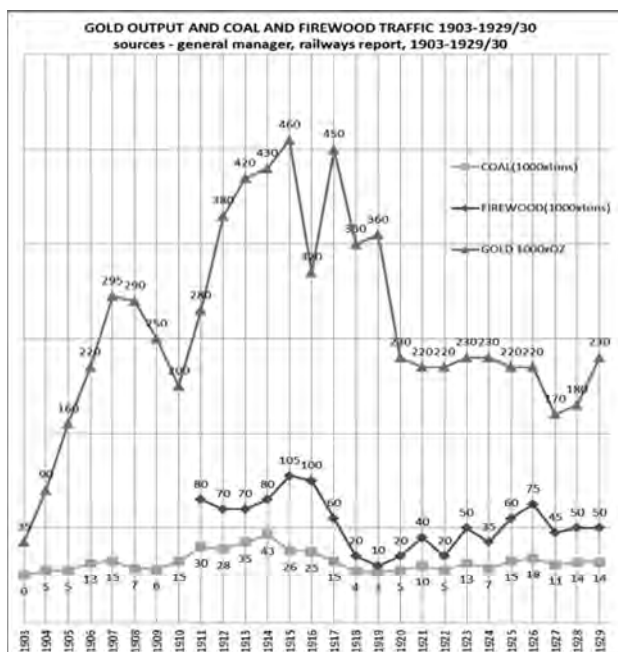
The decline in coal traffic was accompanied by a dramatic rise in firewood to the mines. Like the railways, the mining companies started burning wood from 1904 when it came to their attention that it cost less than half the price of coal. Although the general manager of the railways was worried that ‘fine timber is being cut for firewood by mines, and the railways and shipping companies lose freight’,⁴²³ firewood traffic grew rapidly to a tonnage of 811,364 (47 per cent of the gross railway goods tonnage) by 1911. This dropped over the next two years to 66,433 tons, partly because the majority of the mines had depleted the firewood stock in their immediate vicinity and had started to burn more coal, but rose again to record levels throughout the war years when imported coal became scarce. Thus, by 1918, 139,693 tons of firewood were carried to the mines, increasing its share in the total tonnage from 29 per cent in 1913 to 44 per cent.

The greater demand for wood fuel was reflected in higher producer prices, though this varied from one place to another. At Akrokeri, near Obuasi, the price of soft wood (12½ cords of 144 feet) rose from 3/- in 1914 to 5/6d in 1919, while at Tarkwa a similar quantity of hard wood cost 12/6d in 1919.⁴²⁴ The increased business was accompanied by movement of population settlements as the war years saw the establishment of firewood

camps along the western line, 'nomadic in 1916 they had become permanent in 1917'.⁴²⁵ Although official policy after the war favoured imported coal to prevent rapid deforestation, wood continued to account for the greater proportion of fuel consumption in the mines. As late as 1929–30, 122,618 tons of wood fuel traffic (13 per cent of the gross goods tonnage) was transported to the mines compared to 13,033 tons (1 per cent) for coal.

Perhaps the most powerful evidence of the impact of the railways on the mining industry was the close correlation between fluctuations in the level of fuel traffic (coal and firewood) carried on the railways and fluctuations in gold output (see Figure 10.2). Thus, from a mere 6,000 ounces in 1901, gold output rose steadily to record levels during the war years, but this was followed by a significant decline during the 1920s. Such a close correlation illustrates that 'bullion and firewood were more closely related than their names would suggest'.⁴²⁶ In fact, almost the entire wood fuel traffic of the railways was used by the gold mines, whose location in the heart of the tropical forest made it more economical for them to burn wood. On the other hand, the manganese mines, situated only 25 miles from Sekondi harbour, found it cheaper to use imported coal. Although diamond mining at Kade was 150 miles from the Sekondi port, it still proved more convenient to import coal because cocoa farming had depleted firewood stocks over most parts of Akyem Abuakwa.

Figure 10.2 Gold Output and Coal and Firewood Traffic, 1903–1929/30



The development of manganese mining in particular also generated large export traffic for the railways. Manganese was first carried by rail in 1916, when just over 4,000 tons were taken to Sekondi. Thereafter, other than a minor fluctuation during the post-war depression, manganese traffic expanded rapidly to 507,073 tons (54 per cent of total goods tonnage) in 1929–30.

In sum, machinery, coal, firewood and manganese ore made up the bulk of railway traffic by weight, accounting for 41 per cent in 1907 and 69 per cent in 1929–30. The fastest growing freights were firewood and manganese ore, reflecting increased exports of the manganese and the expansion of the mining sector in general.

The mining sectors were able to expand because they benefited from a relatively low railway rate. As we have seen, agricultural traffic provided some cross-subsidy to the mining sector; by 1926 the average rate per ton mile stood at 2d for manganese ore and firewood, and 1/4d for coal, while foodstuffs (indigenous and imported) attracted 3¼d and cocoa a high 6/7d.⁴²⁷ By providing a more efficient transport service and also a relatively

cheap one, the railways offered substantial savings to the working costs of the mining companies.

Despite these advantages, it did not prove to be the most important growth sector in the economy. Although the mines were significant employers, the total number of African mine workers between 1905 and 1929–30 amounted to no more than 15,000 on the average⁴²⁸ compared with cocoa farming whose employment capacity was estimated at one-sixth of the potential labour force by 1935. In addition to the many local wood cutters and fuel merchants for whom no records were kept, the mines made significant demands for local food production and protein in the form of fish from the coast and livestock from the north. Nevertheless, compared with cocoa farming, the extent of the mining industry's linkages with the Gold Coast economy was weak.

On the other hand, significant benefits from mining accrued to the metropolitan economy. The purchase of mining machinery, stores and, to a limited extent, fuel from Britain stimulated industries there. More significantly, other than token concession fees and royalties paid to the chiefs and the Colonial Treasury, profits from the mines accrued principally to British investors and shareholders. Between 1912 and 1930, the Ashanti Goldfields Corporation produced some 2 million fine ounces of gold valued at £8 million on which dividends of between 62.5 per cent and 87.5 per cent were paid annually.⁴²⁹ Ashanti Goldfields was the most profitable mining concern in the country and its performance was not typical. Nevertheless, its dividend gives some idea of the nature of the distribution of benefits from the mining industry.

The railways had an impact on the development of forestry resources. Logs for export were the main forestry product carried on the railways. Before that, logs were cut as close to rivers as possible and then floated down to the coast. Ankobra River and the port of Axim were the centres of the earliest timber trade. Although the railways changed this, the volume of timber trade was never large. From 11,957 tons in 1907, the quantity carried on the railways fell to 4,105 tons by 1912. Although the traffic recovered over the next two years, it fell drastically to just above 1,000 tons per annum throughout the war years. Apart from shortage of shipping space, the decline during the war is explained by the fact that the majority of the timber merchants were German nationals who were classified as enemy aliens and their businesses were closed down. Although the traffic recovered during the 1920s, it did not exceed 10,000 tons per annum on the average. Rail transport

was not the only determinant at work. As the logs near the railways were depleted, it became necessary to move further afield. Thus, in the absence of motor lorries, logs had to be dragged several miles from the forest to the railway lines. Moreover, at all the collection points along the track, special facilities were required to load the logs onto the trucks.⁴³⁰ Consequently, although timber exports enjoyed a relatively low railway rate, the growth of the industry fell below official expectations.

The railways also facilitated the development of timber processing for domestic consumption. Although the Gold Coast had massive forestry resources, initially the trend was for raw timber to be exported in return for imported sawn timber. As late as 1917, other than one small mill located 12½ miles north of Sekondi, there was no proper sawmill in the colony.⁴³¹ The wartime shortage of imports encouraged timber processing for domestic consumption. The traffic in local timber, which first appeared on the railways in 1913, increased from an annual average of 500 tons between 1913 and 1916 to 1,600 tons in 1917. In the following year, the general manager reported a growing 'native' industry in sawn timber, most of which was located at Tafo and Koforidua on the eastern line. In 1918, the tonnage of local sawn timber carried on the railways had doubled from the previous year, which prompted the remark that sawn timber was an example of indigenous enterprise 'profiteering' from the shortage of imports.⁴³²

Despite the wartime boost to timber processing, the industry was not significant before 1929–30. Apart from the obvious difficulties of cutting and transporting logs, wood processing needed machinery and technical and entrepreneurial skills, and faced competition from imported alternatives. Thus, although sawn timber continued to be carried on the railways, its tonnage did not exceed 2,000 tons per annum on the average throughout the 1920s.

Perhaps the greatest impact of the railways was the stimulation of the agricultural sector of the economy – the production of cocoa for export and the cultivation of foodstuffs for local consumption. The export of cocoa, which started on a very small scale during the 1890s, grew rapidly after the turn of the century to become the country's most valuable export by 1910. Although cocoa had been grown in the Gold Coast by the Basel Mission as early as 1858, it was never grown on a commercial scale because there was no market for it at that time.⁴³³ In 1876, cocoa was introduced into Akwapim by Tetteh Quarshie, who had worked on the cocoa plantations in Fernando Po, but the market for the crop was still very small.⁴³⁴ In fact, it was not until

after 1900, when Cadbury's started buying its cocoa from the Gold Coast instead of from the slave plantations of São Tomé and Fernando Po that matters changed significantly. Thus, after the first exports of 80 lb in 1891, expansion remained relatively slow so that, by 1900, exports still amounted to little over 500 tons. By 1905, when 5,000 tons were exported, it became apparent that cocoa farming had become established on a firm footing.⁴³⁵

Cocoa cultivation was initially concentrated in the south-east of the colony, mainly in the Akwapim and Akyem Abwakwa areas, and shipment was chiefly channelled through Accra. Of the 536 tons of cocoa exported from the Gold Coast in 1900, just over 500 tons was from the rapidly expanding areas around Kibi, served by traditional trade routes and the main road from Accra. From the Krobo plantations around Begoro, 25 tons flowed down the Volta to Ada, while small amounts head-loaded to Prampram, Winneba and Cape Coast make up the remainder.⁴³⁶ Head-loading was both cumbersome and expensive. In 1907, it took three days to head-load the crop from Koforidua to Dodowa, from where the crop was barrel-rolled to Accra. It cost between 2/- and 3/- per load for the last day's journey over the demanding Aburi hills, a figure that exceeded the producer price.⁴³⁷

Despite the high cost of head-loading, cocoa farming expand rapidly, even in areas far from the ports. For all intents and purposes, cocoa farming marked a turning point in the organisation of production on the Gold Coast. For the first time on a large-scale, exports were the result of organised cash-crop production rather than harvesting naturally growing produce from the land.⁴³⁸ Given the unique nature of cocoa investment, it seems unlikely that farmers would have chosen the crop without some expectation of cheaper transport becoming available.

Like the early expansion of cocoa in the south-east of the country, the 1890s was a decade of survey mania during which railway parties traversed most of the colony and, to a lesser extent, Ashanti (see Chapters 1–3). As proposals for railway construction intensified, they promised a transport revolution. The prospect of a new line led to land speculation and petitions from chiefs for extensions into their territories.⁴³⁹ Some of the early cocoa farmers in the eastern and central provinces must have planted the crop in anticipation of the arrival of the railways.

Now that causal links between cocoa cultivation in the south-east and the timing of railway innovation have been established (albeit indirectly), the introduction of the crop into Ashanti and parts of the western province will

be considered. Gareth Austin's study of the history of cocoa farming in Amansie, in the south of Ashanti, provides a useful insight into the timing of the spread of cocoa in that area. According to Austin, although cocoa was introduced to Ashanti in 1896, its rapid expansion did not occur until after the 1900 revolt.⁴⁴⁰ More importantly, Austin states that 1901–14 was paramount in the establishment of the industry in Amansie:

it [cocoa] was so energetically adopted . . . so that by 1914, the majority of available land had probably already been planted with the trees that were to yield over 10,000 tons of cocoa a year by 1921/2.⁴⁴¹

The pioneer western line started in 1898 and reached Tarkwa in 1900. Between 1901 and 1903, the line was quickly pushed into Ashanti, partly with a view to suppressing the revolt. Cocoa farming on a large scale followed close on the heels of the railways. What is more, once in operation, the railways were actively engaged in publicising the cash crop 'revolution'. When the line opened to Kumasi in 1904, the authorities organised excursions to Sekondi for Ashanti chiefs and their entourage 'to see the benefits of adapting themselves to the new mode of transportation, and of utilising their labour on the land'.⁴⁴² On their return, the leaders encouraged production for the market. In 1906, the general manager reported that cocoa planting was being actively pursued in Ashanti and wondered whether the crop had started going to the coast by portage.⁴⁴³ The following year, a two-day agricultural show was organised at Sekondi, during which exhibits were carried free of charge while railway fares were reduced. In addition, no fewer than 450 Ashanti chiefs and leaders were taken by special train to the fair free of charge. Significant quantities of cocoa beans were said to have been brought back so that, by the end of the year, 'nearly every village [in Ashanti] now possesses its own cocoa nursery'.⁴⁴⁴ The direct link between the diffusion of cocoa in Ashanti and the construction of the western line is thus clear.

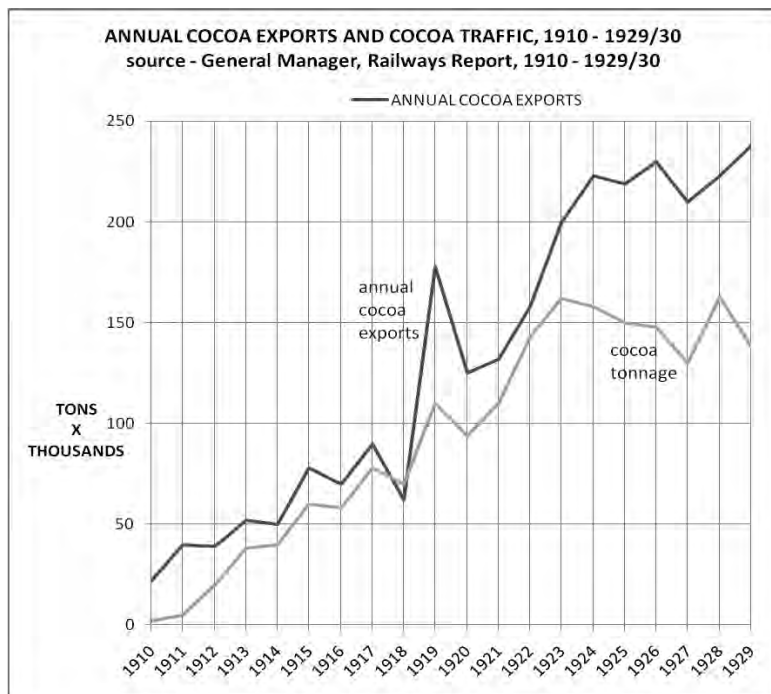
The western pioneer line, far removed from the earliest cocoa-growing areas, initially carried only a small percentage of the cocoa exports to the coast. Between 1904 and 1910, cocoa traffic on the railways amounted to no more than 1,000 tons per annum on average. In 1910, the year when cocoa became the colony's most valuable export, the western line carried only 8 per cent of the total exports to the coast. The opening of the eastern line brought about a dramatic change. Started in 1908, the Accra–Mangoase section opened to traffic in 1912. From September to December 1912, 14,159 tons

of cocoa were carried by rail to Accra. The traffic then stabilised at around 28,000 tons over the next two years. Significantly, a high proportion of the traffic had been stored for several years in anticipation of the arrival of the railways. Indeed, when the line was extended to Koforidua in 1915, the railways gave priority to produce from the current cocoa season to avoid loading rotten cocoa beans to the port.⁴⁴⁵

As the tonnage of the railway cocoa traffic grew, so too did its share of the national output until it accounted for over 70 per cent between 1913 and 1923–24. Thus, other than in 1918, when shortage of shipping space meant that more cocoa beans were taken by rail to the coast than steamers could load, both the national output and railway traffic moved in a remarkably close step until 1923–24 (see Figure 10.3).

Although it was the eastern line that was largely responsible for the increase in cocoa traffic at this time (70 per cent in 1915), significant quantities of the beans began to appear on the western system as well. In 1912, the western line carried 6,593 tons and by 1915, this had tripled to 19,191 tons. Unfortunately, separate figures for the tonnage of cocoa loaded from principal railway stations did not become available until 1926–27, which makes it impossible to ascertain exact trends in the spatial origin of cocoa traffic over time. Nevertheless, by the mid-1920s, cocoa farming had become well established in Ashanti and, to a lesser extent, the Western Province. Thus by 1926–27, Kumasi was the most important cocoa station not only on the western line but throughout the entire network, with a tonnage of 35,586 tons. Other important stations on the western system for cocoa traffic were Bekwai (12,964 tons), Dunkwa (8,312 tons), Akrokeri (5,274 tons) and Obuasi (1,448 tons).⁴⁴⁶ The western line had become a major carrier of the crop once the trees had started bearing fruit.

Figure 10.3 Annual Cocoa Exports and Cocoa Traffic, 1910–1929/30



The rapid spread of cocoa farming into new areas was accompanied by the rise of motor traffic competition, especially in the Eastern and Central Provinces. Figure 10.3 shows the divergence in the movements of national output and railway cocoa traffic from 1923 to 1924. By the late 1920s, the importance of the railways to the cocoa industry had shifted from the eastern line to the western system. In 1929–30, the eastern line accounted for only 30 per cent of the total railway traffic compared with 70 per cent five years previously, while the western line now carried 59 per cent. The newly constructed central line carried only 4,026 tons of cocoa in that year, of which a mere 2,264 tons were forwarded to Takoradi, the rest being carried for short distances and unloaded at stations connected by road to the central province ports.⁴⁴⁷

Other than the Central Province railways, which were constructed after the motor vehicle arrived, the role and impact of the railways on the development of the Gold Coast cocoa industry have been underestimated. More specifically, Kay's contention that railways were insignificant in the rise

of the cocoa industry is mistaken. Eulogistic though McPhee might sound, he is vindicated.

While the railways may have pushed the development of the cocoa industry, reliance on rail transport was not without its costs. In particular, railway rates for cocoa were quite high. Although the beans normally accounted for less than 20 per cent of railway capacity on average, they contributed more than 50 per cent of the gross earnings. As we have seen, direct taxation was a politically sensitive issue so the government resorted to indirect methods of taxation. Thus in 1923, Guggisberg defended the high cocoa tariff as a 'fair means of taxation'.⁴⁴⁸ In fact, some of the traffic policies pursued during the 1920s, especially the 'road gap' policy, can be explained by a concern to protect an important source of revenue. These measures anticipated to some degree the fiscal functions of the state-owned marketing boards from the 1940s.

Cocoa farming was the most important growth sector. By 1935, 1 million acres were under cultivation and the industry had an employment capacity of one-sixth of the potential labour force of the colony, Ashanti and the Northern Territories.⁴⁴⁹ Perhaps more significantly, profits from cocoa farming, unlike mining, accrued principally to African producers, though some groups benefited more than others.

Cocoa production did have some links with other sectors of the economy. It created new demands for commercial food cropping, fishing and livestock production. Income from cocoa farming stimulated construction, including the building of residential and business premises, timber processing, furniture works and, above all, road building. On the other hand, cocoa did not stimulate a large demand for inputs from other sectors. After harvesting, the beans were simply dried and exported; there was no processing activity. Cocoa production remained labour-intensive and the modest capital investment that was required (for machetes, pesticides, spraying equipment and sacks, and the like) tended to be spent on imports from Europe. What is more, most of the cocoa farmers' income was spent on imported consumer goods. Undoubtedly this brought a higher standard of living to some as 'every big village now manages to obtain a fairly constant supply of frozen meat'.⁴⁵⁰

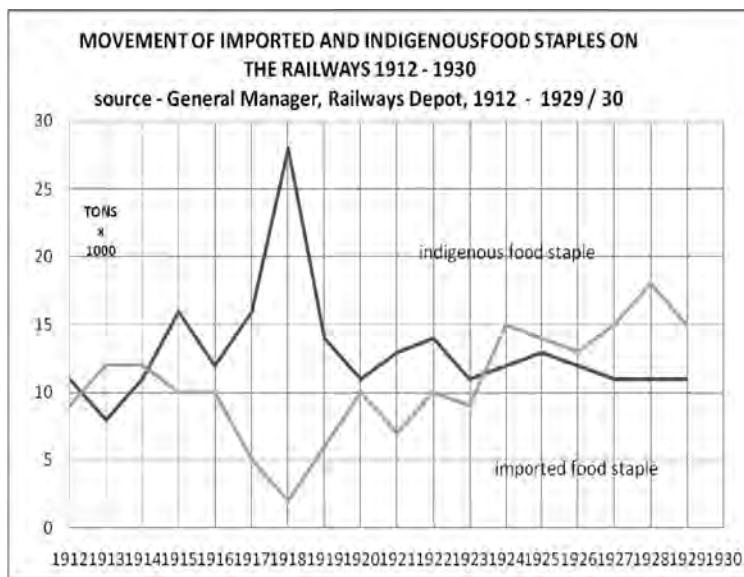
On the other hand, a significant proportion of imports consisted of what Lugard called 'sterile imports', that is, alcoholic spirits. By 1927, the value of spirits imported into the Gold Coast amounted to no less than 20 per cent of the free on board value of cocoa exports.⁴⁵¹ As the Omanhene of Brekum

Ashanti warned, 'drinking two bottles of gin is equivalent to squandering the cost of two loads of cocoa'.⁴⁵² In short, cocoa farmers' high expenditure on imports helps to explain cocoa farming's failure to encourage the growth of industries that could service it.

The other agricultural activity to benefit was food cultivation for local markets. Although at the turn of the century the railways brought in large quantities of food and provisions from Europe to meet the demands created by mines and railway construction, indigenous food production was also quick to respond.. Comprehensive data on the railways' conveyance of foodstuffs first became available in 1912 (see Figure 10.4). In that year, the tonnage of indigenous food items carried on the railways amounted to 11,000 tons, compared with 9,000 tons for imports. However, during the war years, consumption switched to more local commodities. Imported food traffic on the railways plummeted from 12,000 tons in 1914 to 2,000 tons in 1918, while indigenous foodstuffs rose equally sharply from 12,000 tons in 1916 to a high of 28,000 tons in 1918.

The increase in the conveyance and consumption of local foodstuffs was caused by import restrictions at the time – even 'the European community too, now depends to an unusual extent on native food'.⁴⁵³ The imposition of a 15 per cent war surcharge on rates for imported goods placed local Gold Coast food producers in a comparatively favourable position from 1915 onwards. By 1916, rice cultivation, which started in 1912 on a small scale around the mining towns, had spread to most parts of the Western Province. The senior curator of agriculture stationed at Tarkwa believed that the annual output amounted to 'several thousand of bags' and 'there is ready demand for the grain at a lower price than the imported stuff'.⁴⁵⁴ As the general manager reported in 1912, 'trade in native foodstuffs and dried fish has replaced imported rice and tinned herring which before the war were popular and cheap articles of food'.⁴⁵⁵

Figure 10.4 Movement of Imported and Indigenous Food Staples on the Railways, 1912–30



The influence of the railways on food produce for sale was most marked in the western districts. Here, the Kroo, Mendi and Bassa ‘boys’ who pioneered the local cultivation of rice were railway contract labourers from Sierra Leone and Liberia where rice was the staple diet. Thus, the railways contributed directly to the diversification of food crop production. However, opportunities for food cultivation for sale to the mines and the major sea port at Sekondi–Takoradi, together with firewood cutting and mine work, probably helps to explain the initially slow expansion of cocoa farming into the Western Province.

Imported food traffic recovered after the war, boosted by the lifting of surcharges on rates for imported goods from 1923 to 1924. Why local foodstuffs were unable to retain the markets they had enjoyed during the war in the face of renewed import competition is one of the many unexplored issues of the Gold Coast’s economic history.

Although the railways provided significant forward linkages for the local economy, the distribution of the rail network was not without its negative effects. Historically, the pattern of economic activity in the Gold Coast was always based on the division between forest and savannah, in which the

former played the dominant role. Not only were the Mande traders from the north and Europeans from the south both attracted by the resources of the forest (gold, kola nuts, slaves, palm produce and rubber), but the forest states of Ashanti, Akyem and Fante had also drawn on slave labour from the north for mining and agriculture in the south.⁴⁵⁶ Nevertheless, the railways, and for that matter colonialism, could be said to have enhanced and institutionalised such divisions.

Given that there were local labour shortages in the colony and Ashanti, leading government public works and the mining companies as well as cocoa farmers to depend on external sources of labour, the authorities came to regard the underdevelopment of the semi-arid savannah regions of the Volta and the Northern Territories as a means of maintaining a permanent cheap labour reserve for both expatriate and indigenous employers in the forested south. Thus in 1902, Governor Nathan decided against the construction of a Volta district line, because 'labour would be deflected from the mines and the Kumasi railway extension'.⁴⁵⁷ Indeed, some of the ironies of the Guggisberg administration's policy regarding the economic development of the Northern Territories, especially the Governor's decision not to agree to the construction of a northern line, can be explained as a concern to protect an important source of cheap labour for the mines and the cocoa industry. These measures were thus largely responsible for the evolution of an uneven, mono-cultural economy heavily dependent on cocoa exports and, to a lesser extent, gold, manganese and diamonds.

Pre-colonial West Africa had a long-established external trade involving far more than a minority of chiefs and wealthy traders; 'humble commoners both bought imported goods, and produced and traded a variety of export products'.⁴⁵⁸ Despite this, the contemporary observer Mary Kingsley could still write at the turn of the century that 'there is not a single thing Europe can give to the native that is in the nature of a true necessity, a thing that the native must have or starve'.⁴⁵⁹ In other words, West African societies at this time were relatively self-sufficient and dependence on imports and exports was the exception rather than the rule.

The construction and expansion of railways brought about a dramatic change. Between 1900 and 1930, the Gold Coast's external trade grew more than ten-fold, imports seven-fold and exports nearly fourteen-fold. As a result, public revenues multiplied nine-fold, while government expenditure more than quadrupled (see Chapter 7). Thus from the British economic and political point of view, railway and harbour construction was largely

successful; it not only stimulated export production for the metropolitan markets and created new markets for metropolitan products, but the increased import and export trades also generated substantial revenues for the administration of the colony.

Nevertheless, as Hopkins points out, 'economic development by way of staple exports can be a precarious and lengthy process'.⁴⁶⁰ Although there was a close correlation between fluctuations in world prices and fluctuations in local income and expenditure, West African producers had to accept the world price because they were unable to control the volume of their exports on the market. Thus, on an index in which 1968 = 100, the Gold Coast's net barter terms of trade (a measure of the changes in the quantity of imports which can be derived from a given unit of exports) deteriorated by almost 50 per cent between 1900-4 and 1925-29, even though the income terms of trade (the total import purchasing power of the country) multiplied seven-fold.⁴⁶¹ This improvement in income terms reflects a general expansion of export volumes so that, in the absence of technological improvements in agriculture, maintaining existing levels of purchasing power of exports became the function of increased inputs of labour and land. The environmentally unsustainable consequences of cutting down more and more virgin forest in order to increase cocoa output are obvious but await systematic research.



A mobile library van



A typical Ghanaian family in Yendi, 1957



Buying from a shop



Chiefs studying



Children learning



Dwelling houses on high grounds



One of the Operating Theatres at the Gold Coast Hospital.



Waiting Room for Out-Patients, Gold Coast Hospital.



The Steam Laundry at the Gold Coast Hospital.



The Kitchen, Gold Coast Hospital.

Gold Coast Hospital, 1925



Main Street, Begun.



Gothic House, Cape Coast (Built by a native Merchant afterwards sold to the Government)

*Gothic House, Cape Coast (Built by a native merchant
& afterwards sold to the Government).*



Pottery in Ghana



Rev.Fr. speaking to school children



San Salvador House



*Our boys in their "Sunday best."
(The girls do not reside in the house.)*

Students in their Sunday best, February 1892



The Selwyn Market, Accra. 1925



University students



Ward for Women Patients, Gold Coast Hospital. 1925 Accra

Chapter 11

Railways: Commerce and Crafts, Urbanisation and Public Health

Commerce and Crafts

The railways had an impact on commerce and traditional crafts. By stimulating trade in imports and exports, railways were instrumental in transforming the spatial distribution and organisation of commerce as well as output and employment in craft production. Broadly speaking, there were three important aspects of change:

1. the physical penetration of European commercial and financial institutions into the interior;
2. a simultaneous expansion and contraction of opportunities for African merchants and traders; and
3. the changing fortunes of traditional crafts under the impact of imported mass-produced goods.

Before the railways arrived, European trading activity was confined to the coast and trade was conducted with the interior through a network of independent African middlemen and traders. The control and organisation of this trade was a source of conflict not only between the coastal principalities and the inland state of Ashanti, but also between European merchants and their African counterparts.⁴⁶² Indeed, the decision to expand British colonial rule beyond the frontiers of the Gold Coast colony was made partly to protect free access to the hinterland trade.⁴⁶³

Although British rule removed some of the institutional barriers to the smooth conduct of trade⁴⁶⁴ there was no immediate change in the traditional organisation of commerce. Trade continued to operate through the long-established middleman system but, more importantly, the European trading firms were reluctant to penetrate directly into the interior. 'European companies', it was observed, 'do not make use of the Volta, and individual merchants do so only if the canoe owner takes all risk of loss.'⁴⁶⁵ Despite active encouragement from the authorities, who believed that increased penetration would augment trade and in turn enhance the revenues of the

newly acquired territories of Ashanti and the north,⁴⁶⁶ European firms failed to respond. As late as 1901, other than the Basel Mission's trading store at Akropong-Akwapim and the firms of F. and A. Swanzy which operated branch stores at the river port towns of Akuse and Kpong on the Volta, there was no direct expatriate commercial activity in the interior.⁴⁶⁷

The railways facilitated what Hopkins has called 'the second partition of Africa'. They were directly responsible for the spatial diffusion of the trading firms into the interior. In 1904, the year the railway reached Kumasi, eleven European firms opened branches there⁴⁶⁸ and, followed by the Bank of British West Africa two years later, 'the town is now fast developing into the trading centre of the whole of Ashanti'.⁴⁶⁹ The Ashanti-Obuasi Trading Company Limited, a subsidiary of Ashanti Goldfields Corporation, commenced operations at Obuasi, Sansu and Akrokeri in 1906.⁴⁷⁰ The following year, the Basel Mission Factory took the unprecedented step of opening a branch store way beyond the Kumasi railway at Kintampo 'and there appears to be no reason why other firms should not shortly follow its example, and for the town to become a flourishing centre'.⁴⁷¹

In the eastern cocoa belt, the penetration of the trading firms also followed close on the heels of the railways. In 1909, F. and A. Swanzy and two other European firms had branches at Nsawam, and many others, including the Bank of British West Africa, were negotiating for building sites at principal railway stations.⁴⁷² By 1911, expatriate stores were firmly established at Koforidua, Kukurantumi, and Tafo.⁴⁷³ From then on, expansion of European firms accelerated, so that by 1915 'there are now numerous villages boasting one or more European stores, where a most varied assortment of goods can be obtained'.⁴⁷⁴ The railways also carried a large import traffic in specie, which was distributed regularly at all principal railway stations 'and the markets are filled with imports of greater variety . . . besides locally grown foodstuffs, and they daily present scenes of the greatest activity'.⁴⁷⁵ By opening up the country to European commercial activity, the railways were instrumental in the spread of the money economy into many parts of the country.

The penetration and intensification of expatriate commercial activity into the interior had important implications for African traders and merchants. Elsewhere in West Africa, it is argued, penetration of European firms resulted in the gradual decline of African middlemen from being 'wealthy entrepreneurs of the late nineteenth century to petty traders after 1930'.⁴⁷⁶ No comparable attempt has been made to investigate how the twentieth-

century Gold Coast middlemen fared.⁴⁷⁷ Nevertheless, the evidence suggests that there was a simultaneous contraction and expansion of opportunities for them.

The expansion of expatriate trading activity created opportunities for retail trade for many Africans. At Kumasi, fifteen markets were held each week where produce might change hands several times.⁴⁷⁸ Indeed, in most parts of the inaccessible rural areas, itinerant small traders hawked their goods from one village to another. Moreover, in several of the minor towns, Africans were employed in the expatriate branch stores as salaried workers or commission agents.⁴⁷⁹ The trading firms also employed a large number of Africans as produce brokers and sub-brokers, some of whom went to the bush to advance money to cocoa farmers before the crop was harvested.⁴⁸⁰

At the same time as the trading firms were opening up opportunities for some, they were the cause of loss of employment for others. As the firms became better established in the interior, they began to trade directly with African producers and consumers. Opportunities for the middlemen contracted as a result. By 1906, Kumasi was said to have appropriated to itself the trade that formerly existed between Ashanti and the coast 'and the native now buys his goods from the European store instead of the coast trader'.⁴⁸¹ In southern Ashanti, 'people are now finding that their wants can be supplied nearer home' and 'Obuasi is becoming more and more a trade centre of the Province'; 'lucrative trade for the Ashanti middleman is now closing'.⁴⁸²

Many independent African merchants and traders also found themselves unable to compete with the bigger European companies. Howard describes one example of European firms undercutting African traders and turning them into dependent retailers. In 1930, the United African Company informed the fish traders at Dunkwa of its intention to buy salt fish wholesale on the coast, transport it by rail and sell it to local women who would become retailers. The traders protested to the authorities that the company could turn a monopoly over salt fish distribution to its own advantage by retailing the fish as well.⁴⁸³ In response, one official noted that the process of the small traders being ousted by the bigger firms was inevitable 'and already with respect to Manchester cloths, cigarettes and so on, the women buy these on credit from the European stores, generally at a stone's throw from the market itself, and proceed to retail them'.⁴⁸⁴

Despite such undercutting, one should not assume that traditional independent middlemen and traders simply disappeared. Some traders

shifted into areas considered safe from European encroachment. In 1905, the Chief Commissioner of the Northern Territories reported the case of a 'displaced' coast merchant who had opened a large store for the sale of European goods at Kintampo 'and is doing well'.⁴⁸⁵ The annual report for the following year noted an influx of coastal traders, though 'the most notable feature in this respect is the apathy shown by European traders on the coast to avail themselves of this movement'.⁴⁸⁶ By 1909, only one expatriate store was operating in the whole of the Northern Territories.⁴⁸⁷ Thus, by switching their sphere of operation, some African traders maintained a foothold in the distributive trade. Others survived by specialising and restricting their dealings to particular commodities.

Ashanti traders and chiefs who had access to cheap human labour, including slave labour, continued to outbid the European firms in the spirit trade well into the 1910s,⁴⁸⁸ a position which was boosted by the availability of motor transport after the war.⁴⁸⁹ Finally, the evidence suggests that some traders may have diversified into new commercial ventures. Nii Bonne, a wealthy Accra chief who, until the 1910s, operated a prosperous middleman trade between Accra and Ashanti, had by the 1920s become a public works contractor. His activities were said to have included street drains, houses and 'factories' for Europeans and the Dodowa market on contract to the government.⁴⁹⁰ In short, the increase in the volume of the import-export trade, together with possible adaptations among traditional middlemen and traders, may have helped to offset any loss of jobs through the undercutting of African traders.

The railways also had an impact on employment and output in the traditional craft sector. By introducing mass-produced goods, they forced local industries to compete with imports. As in the case of the fortunes of African traders, however, the effect of imports on traditional crafts has been scarcely investigated so that the scale and timing of any decline in craft production is uncertain. Railway sources, and indeed colonial administrative reports, provide only cursory glimpses. In the case of the traditional weaving industry of the north, there is evidence to suggest that imports were ousting the northern supply in the Ashanti market by 1907.⁴⁹¹ The high prices and inferior quality of imports during the war seem to have helped to bring a temporary check to that process. As the Chief Commissioner of the Northern Territories reported in 1918, 'native cloth is becoming increasingly popular again as an export commodity to Ashanti'.⁴⁹² In that year, the railways distributed 305 loads of northern cloth, compared with thirty loads

during the previous year. But after the war, the situation may have returned to the pre-war position.

Again, one must not assume an overall decline of indigenous industries because there were local tastes and preferences. In the case of the expensive kente cloth of Ashanti, the evidence suggests that the local industry experienced little competition from imports. As Rattray points out, traditionally the design and production of the cloth came under the control of the king who would either retain it for the court or allocate it to great men or women in the kingdom as symbols of their status.⁴⁹³ As the Chief Commissioner reported in 1910, 'European fabrics are no substitutes for country cloth of the handsome designs'.⁴⁹⁴ Moreover, as Inez Sutton's study of the Ada salt trade demonstrates, despite the availability of imported salt, trade in the local commodity expanded throughout the colonial period partly because people preferred its taste and partly because they believed it enhanced virility.⁴⁹⁵

Urbanisation and Public Health

The railways contributed to the imperial objective of opening up the country to private enterprise and to effective colonial rule. The new railway stations were not only centres for the introduction of the money economy and of new ideas, but were also places where the agencies of colonial law and order were established and from where their policies were imposed. As the nuclei for administrative and commercial centres, the new railway stations also became the focal points for urban development.

The railways influenced urban development on the Gold Coast in three important respects:

1. their impact on long-established settlements whose commercial or administrative importance attracted rail connection;
2. their role in the creation of entirely new urban settlements; and
3. their negative impact on traditionally important settlements which declined or stagnated as a consequence of shifts in centres of economic activity following railway construction.

Accra and Kumasi are outstanding examples of towns among the first category of urban settlements. Kumasi, the capital of Ashanti, had always been the most important administrative, cultural and commercial focus of the

empire. Dupuis estimated Kumasi's population to be between 12,000 and 15,000 in 1817.⁴⁹⁶ In addition to the royal palace, the town had a large marketplace, temples and sacrificial groves, a Hausa traders' *zongo* and a British Embassy where European visitors stayed. This made the town the object of British expansionary forces from 1874 onwards and eventually the military target of the western railway extension in 1900.

One of the most detailed and authoritative descriptions of Kumasi's physical landscape was the intelligence report prepared by the War Office in the aftermath of the 1896 invasion, which was later made available to the railway consulting engineers. Kumasi was described as a 'nucleated' settlement built around the palace. The town itself was located on compact ground, 950 feet above sea level, and was almost entirely surrounded by the unhealthy swamps of the East and West Nsuben rivers in the form of an arch. The only natural outlet was to the south-west between the openings of the rivers.⁴⁹⁷ The strategic significance of Kumasi's relief is obvious.

From the outset, the choice of Kumasi as a railhead posed serious planning problems. Although the town contained 'waste ground and remains of houses that had once been occupied', it was said to have reached the limits of its expansion.⁴⁹⁸ Thus, to push the railway line straight into the heart of the town involved not only the problem of altitude but also, within the township itself, hardly any space for railway buildings and commercial activity. On the other hand, to locate the railhead outside the town would incur heavy expenditure on drainage. Military imperative precluded delay. For this reason, the authorities opted for the former, since it also had the advantage of affording a direct rail link with the British embassy, now built into a 'fort'.⁴⁹⁹

The imposition of British rule over Ashanti and the restoration of Kumasi as the administrative centre, together with the arrival of the railways in 1903, breathed new life into the process of urban development. By 1906, 'the town continues to extend' and 'the old thatched-covered houses are rapidly disappearing, their places being taken by solid "swish" buildings with iron or shingle roofs'.⁵⁰⁰ Although Kumasi was growing fast, it could not expand, nor could it accommodate the rising population. An early feature of Kumasi's urban development, therefore, was the proliferation of small villages in the outskirts whose residents commuted daily into the capital; 'filled to overflowing in the morning, Kumasi has, towards evening, a comparatively deserted appearance'.⁵⁰¹ Within the town itself, the building of residential and commercial premises was so rapid that, by 1915, most districts were congested, especially the area on either side of the railway track and

close to the railway station.⁵⁰² When plague struck the town in 1918 and again in 1924, it was devastating, especially in the overcrowded *zongo* slums.⁵⁰³

During the war, the need to develop new settlements at Kumasi was becoming unavoidable. Significantly, the main impetus for change came from the decision to extend the eastern railway to Kumasi to link the two systems. In order to enter the town, the Accra railway had to cross the main outfall of the East Nsuben, so a comprehensive drainage scheme was undertaken as part of the extension programme. The wetlands near the Ejisu road were drained and the reclaimed area developed into a railway station with commercial premises adjacent to it. To the north, the wetlands at Kejetia were reclaimed and a market was built that was large enough to accommodate 900 traders. To the south, there was a residential area with private houses and government premises. Having initially accelerated congestion in old Kumasi town, the railways initiated the development of new, well-planned settlements, which, in Guggisberg's words, 'has made Kumasi the garden city of West Africa'.⁵⁰⁴ Today, a visitor to Kumasi will have no idea that the outlying districts were once swamp valleys which acted as a natural line of defence for the ancient city.

Accra was the other traditionally important settlement which attracted rail connection, though it was different from Kumasi in many respects, not least its early European influence. One of the most flourishing sea ports following the arrival of Europeans was Accra. By 1877, Accra had become the administrative capital of the newly established British colonial administration.⁵⁰⁵ At the turn of the century, Accra consisted of the James and Ussher Town complex, which the Guggisbergs described as 'an unimposing ramshackle collection of weather-beaten white-washed houses and huts'.⁵⁰⁶ Thus, Accra's unplanned agglomeration of buildings contrasts sharply with the traditionally planned Kumasi.

Unlike the 'nucleated' ancient city of Ashanti, Accra was situated in open countryside, so there was no environmental obstacle to the expansion of the town. Thus, when a railway site board was established for the town in 1908 to acquire land for railway works, it was easy to pursue a liberal acquisitive policy covering the entire townships of present-day Adabraka, Osu, Ridge and Contonments.⁵⁰⁷ The station itself was located north of Ipon town, a small non-Ga native settlement a quarter of a mile from the coast. Ample land was allocated near the station for workshops and offices as well as merchants' plots where Seylwin Market was built in 1922.

Perhaps the most significant impact of the railway on the urban landscape of Accra was the extension of the township. In 1913, one year after the Accra railway opened, a 12-mile light commuter service was introduced between the coast and the farming settlements of Achimota which, in the general manager's words, was intended to 'push the native towns further and further away from the coast' to make room for commercial and government premises.⁵⁰⁸ The railway service made the area on either side of the track the focal point for the earliest settlements and, by 1920, when a town planning programme was launched for Accra, one of its aims was to redress the imbalance in the township by encouraging new settlements away from the railways.⁵⁰⁹

The railways created new urban centres. Although Sekondi had long been visited by 'irregularly scheduled trading vessels' it had not developed into a settlement of any significance, so that by 1898, when railway building commenced from there, the town was 'a mere fishing village consisting of a few mud huts'.⁵¹⁰ The choice of Sekondi as the coastal terminus of the western pioneer line transformed it into a prosperous commercial centre and administrative town. As the town's importance grew, Sekondi's population rose from a few hundred in 1898 to 9,500 by 1911, reaching 16,900 by 1921.⁵¹¹

Sekondi's rise to prominence was, however, not matched by house building. One of the earliest features of the town was the proliferation of an overcrowded slum, built out of corrugated iron sheets and scrap metal to the north of the railway station close to the European township.⁵¹² Poor sanitation, together with its close proximity to the European settlement, raised protests among the expatriate community. As a result, in 1909, the town was relocated near Ketan, 3 miles from the railway station.⁵¹³ Here too, availability of a railway commuter service facilitated the expansion of the town. 'Location', the railway headquarters and workshop complex, was later sited there as well.

In addition to the major sea port of Sekondi, the railways spawned a number of new settlements and several major villages became important market towns. In 1900 Koforidua was a small village outside the mainstream of British jurisdiction.⁵¹⁴ The increase in cocoa production, together with the railway's arrival there in 1916, transformed the village into the commercial and administrative centre of the Eastern Province. There, in addition to the European firms, Hausas traded in kola and meat, while people from Lagos in Nigeria bought and traded cocoa.⁵¹⁵ Similarly, Nkawkaw, which in 1923 was

‘a collection of houses around a railway station’, soon became a nodal point for the expanding cocoa-growing areas of the Kwahu plateau towns, from where farmers traded their produce for imported goods. Juaso, New Mangoase and Konango were also minor rural settlements that developed into market towns shortly after becoming railway station towns.

But while contributing to the growth of some towns, the railways caused others to lose their economic importance. Cape Coast, the key terminus of the inland trade, historically had been the most important commercial and administrative centre on the coast. However, as the major developments in cocoa farming and mining following railway construction occurred outside Cape Coast’s sphere of influence, the large trading firms moved their headquarters to Sekondi or Accra.

Between 1891 and 1911, Cape Coast’s population stagnated at just over 11,000 and although it later increased, the town’s population growth lagged behind that of Accra, Sekondi–Takoradi and Kumasi.⁵¹⁶ The only position Cape Coast managed to retain was as a centre of education. Similarly, the south-eastern towns of Kpong and Akuse on the Volta dwindled after they ceased functioning as ports, because both the expatriate firms and the seat of the provincial administration were relocated to the new railway town of Koforidua.

The railways were instrumental in developing social and public health facilities in most of the expanding urban areas. The development of modern electricity schemes, water works and, to a limited extent, health facilities were closely related to the needs of the railways. For instance, supplying water to the urban areas was a result of the chronic water shortages that afflicted the trains. To overcome the problem, the Railway Department set about drilling wells along the line, which in turn led to the involvement of the railways in the sale of water to the public.⁵¹⁷ Similarly, the first electricity plant to be installed in the Gold Coast was at the railway workshop in Sekondi, which started operating in 1918.

Later, when Takoradi was built, the Sekondi power station was expanded to meet the needs of the harbour and township. In Accra, electrical power from the railway workshop provided the streets of Osu and James Town with their first electric lighting in 1924.⁵¹⁸ During the war, the Colonial Office even considered building a dam across the Volta to generate electricity for the railways and the mines.⁵¹⁹ Finally, the railways pioneered health facilities. The first government hospital established outside Accra was built at Sekondi in 1898 for railway construction labour. The Obuasi hospital was built in

1900 for the same purpose. It was sold to the mines on completion of the railway extension.⁵²⁰

At the same time, railway development could also jeopardise public health. As transport agents, the railways not only facilitated the spread of epidemic diseases as in the case of the 1918 pandemic which killed 100,000 in the territory,⁵²¹ but the growing urban centres were also breeding grounds for diseases. In the Northern Territories syphilis was called the 'Kumasi sickness' because it was associated with returnee workers from the south.⁵²²

As noted in Chapter 7, at the peak of the colonial experiment in the Gold Coast, no more than 1 per cent of school age children attended primary school, while just 1 per cent of the country's population had access to modern health care. Given that colonial social services were hampered by a lack of staff and funding, leading the authorities to concentrate their meagre facilities on the expatriate community and African government employees in the urban areas, the railways served as agents of modernisation. This though could be offset by the negative impact, especially in the rural areas. On the other hand, by opening up the country and facilitating the spread of European ideas and values, the railways may have contributed indirectly to the abandonment of inhumane indigenous religious rituals such as human sacrifice in Ghana and other West African communities, though the exact mechanism remains to be explained. Even so, the railway system was so limited in mileage that no more than 10 per cent of the country's total land area came under the direct influence of the network.

Thus, railway policy accentuated pre-colonial regional disparities in power and influence as well as creating new inequalities in opportunity between the south and north, and between urban and rural regions, inequalities that continue to plague Ghanaian public policy makers.

Railways and Economic Development: The Gold Coast Experience in the Global Context

This final chapter locates the Gold Coast railway experience in the global context of the link between railway innovation and economic and social developments of the time. In what ways, if any, did railways on the Gold Coast replicate the experiences of their British progenitors? Can the history of the railways on the Gold Coast serve as a paradigm for colonial railways in Africa, Asia and South America? Are there lessons to be learnt from the Gold Coast's experience in efforts to build a better future for the peoples and societies of the tropics?

The literature on the history of railways in the industrial world is in agreement about the progressive contribution the railways made to economic development. Despite the attempts by new economic history to play down the traditional 'indispensability' thesis, the potential of railways was spectacularly realised in many parts of Europe and North America. Writing on the United States, Albert Fishlow argued that the prime beneficiary of railway development during the ante-bellum period was not industry but rather was agriculture. He also pointed out that the railways were not crucial to the accelerating pace of economic activity before the Civil War and that the rapid growth of domestic industry did not depend on the railways' demand for iron.⁵²³ Fogel agrees that despite rapid growth, the railways did not make a substantial contribution to the production potential of the United States.⁵²⁴

Applying the social saving theory to Britain, Hawke asked what the cost of dispensing with railways and transporting passengers and goods by road and canal would have been. He concluded that in 1865, railways represented a social saving of between 7 and 11 per cent of the net national income of England and Wales.⁵²⁵ Church used Hawke's figures to demonstrate that 'railways as providers of transport services made a small contribution to the national economy than has been widely assumed'.⁵²⁶

O'Brien, on the other hand, has shown how it is possible to make the social saving ratio appear more impressive by considering the implications of making up for the income sacrificed over the long term. Thus, for 1865–70, closure of the railways would have necessitated a 40 per cent increase in the

growth rate, a similar increase in the gross investment rate and a 5 per cent reduction in annual expenditure.⁵²⁷ But Gourvish was not convinced that social saving estimates 'really mean very much at all',⁵²⁸ and reasserted the importance of externalities or 'spin-off' effects from railways to industry and commerce, the majority of which cannot be precisely quantified. Clearly, the problem with western railway historiography, unlike that in Africa and other postcolonial societies, is not so much whether railways had a positive effect on economic development, but rather by how much, a question that continues to fox cliometrics.

Given that economic growth occurs both over time and in societies that may differ widely, similar causes may operate in very dissimilar environments and lead to variations in the timing, pace and many other facets of economic change. As J.R. Clark argued:

As to conditions of growth, I started with the assumption that these conditions differ for different historical situations and that, while they may have some common elements, they are probably to some extent unique to each case, including the same country in different stages of its development, and different countries in generally similar stages of development as well as at different stages.⁵²⁹

National and inter-temporal differences are in stark relief when we consider the opportunities afforded by railway innovation in the very dissimilar social, political and economic environments of the advanced industrial West and colonial Africa. The broad characteristics of railway development in the industrial economies and a typical colonial economy (the Gold Coast) can be juxtaposed as follows:

An Advanced Industrial Economy (Britain)⁵³⁰	A Typical Colonial Economy (the Gold Coast)
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1. *Initiatives*

Planned by local businessmen and politicians; reflects their perception of transport needs and potential; integrates the national economy – domestic as well as the export and import trades.

Planned by an alien agency; more receptive to foreign businessmen and politicians; biased towards overseas need rather than internal commerce.

2. *Capital*

Raising capital stimulates local financial institutions, increases savings and investments, and helps to induce booms to offset slumps.

Borrowed from abroad by the state; no stimulus to local capital formation; leads to external financial obligations and balance of payments problems.

3. *Technology*

Locally supplied, or initially imported, but gradually built locally by indigenous metals industry; boost to total demand (particularly during construction) encourages economies of scale, leading to accelerated technical progress.

Invariably imported; no stimulus to domestic heavy industrial sector; encourages dependence on external sources of technology.

4. *Management and Technical Skills*

Locally generated, creating employment for a new social stratum – engineers, surveyors, technicians, contractors; encourages training facilities, leading to continuous reproduction of technical and managerial knowledge; potential for diffusion to other sectors of the economy are much higher.

Imported, expensive; leakage of expenditure (via salaries and pensions, etc.) overseas; slow indigenisation; lower levels of skills acquisition and diffusion.

5. *Tariff Policy*

Basically competition, with company profits as the major aim; special recognition for the development of the trade of particular regions widens the market and leads to specialisation in commerce and industry.

Monopoly, with revenue to Colonial Treasury as the major aim; discriminatory prices, bias in favour of expatriate mining over indigenous cocoa and agrarian interests, but generally promotes external rather than internal commerce.

6. *Public Revenue*

Company and other income taxes arising from increased economic activity as the major source of public expenditure.

Indirect taxation of African consumer goods and cocoa exports, but British firms operating locally exempted from company and profit tax which accrued directly to the UK Treasury, with far reaching consequences for the postcolonial state.

For these reasons, the progressive influence of railways was bound to be weaker in a colonial or less developed economy. In Western Europe, not only did an active business class evolve over several hundred years, but more importantly, large-scale ventures in trade, mining and canals existed before the nineteenth century. Because British and other railway developers had already achieved considerable industrial capacity, they were able to exploit the indirect benefits of backward linkages from their railway ventures and supply technology and equipment to the rest of the world. Thus, backward linkages to industrial development in the advanced economies contrast sharply with the situation in the Gold Coast, where railway construction provided almost no stimulus to other sectors of the local economy. Nor did railways in the Gold Coast help to create 'economic methods and institutions' to the benefit of commerce and industry.

In one important respect – lowering transport costs – the effects of railway construction are potentially greater in a less developed economy. The more effective a country's shipping and road transports are, the smaller the gains accruing to the economy from its investments in railways. Conversely, countries with few navigable rivers and a terrain unsuitable for the construction of canals, as well as poor coastal shipping facilities, tend to gain

most from their investment in railways. Thus in Britain, the United States and France, where railways took over from canals and road carriage, benefits from forward linkages were relatively small. 'British railways', Mitchell noted, 'were built with existing traffic in mind' and:

the coming of the railways in Britain did not lead to a wavelike profusion of new enterprises of many sorts simply because there were already a great many enterprises with their traffic already flowing in established channels.⁵³¹

Furthermore, Mitchell noted, other than the perishable trade (fresh foodstuff) railways in Britain 'did not . . . simply make possible what had been previously impossible'.⁵³²

On the Gold Coast by comparison, railways did make possible what had been previously impossible. Before the arrival of railways, transportation was almost exclusively by head-loading. Unlike Britain, the United States or even Tsarist Russia, the Gold Coast had few river systems suitable for transportation. Moreover, since most of the population and economic activity had always been located in the interior forest regions, coastal shipping never played the role it did in Europe and the United States. Gains from the transport services were therefore impressive. Railway rates in 1903 represented well over a 90 per cent reduction in head-loading costs and tariffs fell by a further 25 per cent between 1903 and 1922.

In fact, it is impossible to conceive the widening of the market or expansion of export production in the Gold Coast between 1890 and 1930 without railway innovation. Opportunities to produce for world markets brought real, if modest, improvements in incomes and standards of living. Nevertheless, the pattern of railway development tended to reinforce production for external rather than internal markets, leading to the growth of a lopsided, export-oriented economy with regional inequalities and income disparities.

In most parts of Africa, railways were constructed in the twentieth century, although some were planned earlier. The systems constructed first were those thought to be strategically essential or most lucrative. In West and East Africa, most of the railways were constructed with a view to exploiting the export potential of agriculture and mineral deposits. Most of these systems were state enterprises. While in the Sudan and Uganda, the railways were built for strategic reasons, in Central and South Africa, which had both

state and some private systems, the railways were constructed to exploit mineral deposits found there. Throughout the continent, with the exception of South Africa, railways were directed to either a mineral deposit or an export crop in the hinterland, terminating at a coastal port. Nowhere was a dense communication network built, other than in South Africa, where branch lines were constructed during the 1900s to link the farming districts with the major trunk routes established earlier between the ports and the mines. With this one exception, railway densities per square mile remained among the lowest in the world and most of the African landmass remained outside the direct influence of a railway line.⁵³³

As in the Gold Coast, railways never became a leading sector anywhere in colonial Africa. The backward linkages from railway construction accrued to metropolitan heavy metal and engineering industries so that, as a consumer industry, the railways established limited direct multiplier effects with the African economies. All manufactured goods, equipment and skills came from Europe and, except for South Africa and later Nigeria, even fuel was imported.⁵³⁴ In East Africa, the British introduced Indians as manual labour, while the Belgians recruited Chinese indentured workers for the Congo.

Nevertheless, as the experience of the Gold Coast railways convincingly demonstrates, in a continent lacking natural internal means of transport and communications, railways made possible what had been previously impossible. In most places, the volume in transportable goods was not large, but wherever the lines penetrated, local entrepreneurs and foreign capitalists proved highly responsive, so that mining and agricultural export production boomed. Claims that certain colonial dependencies were mere creations of railways⁵³⁵ are probably exaggerated. What can be said is that railways were among the most important, or even the prime, factor in the expansion of commerce and economic growth during the colonial era. Crowder may be right to say: 'If the Colonial powers can be said in any way to have brought economic revolution, it is through the construction of railways.'⁵³⁶

The transport revolution, though, was superficial not only because of its failure to include the majority of the African population in the mainstream of economic activity, but also because the period of railway 'indispensability' was short-lived. While the 'pioneer' railway lines constructed before the First World War were essential in opening up the African hinterland to trade and commerce, the same cannot be said of the later extensions. O'Connor concluded that the lines serving Uganda 'appear to have been of progressively decreasing importance in terms of their impact on the country'

and that those built in the 1920s 'had very much less effect on economic development, for although they immediately handled a large volume of traffic, much of this was merely diverted from the lake services'.

His assessment of the contribution in Tanganyika (modern Tanzania) is not much brighter.⁵³⁷ There, the 93-mile extension to Kinyami was torn up before the Second World War as uneconomic and the Moshi–Arusha extension, which was intended for settler development, never became significant. In this respect, it is important to acknowledge competition from a new and more flexible mode of transport – motor vehicles – in some sections of the Gold Coast system during the 1920s. Further research is needed to ascertain whether duplication of transport facilities or other exogenous factors were responsible for the diminishing returns in African railway investment from that point on. All that can be said is that, compared to Asia and South America, Africa was a latecomer and this meant that the period in which railways could be said to have been indispensable to the African economy was brief – barely two decades.

Whatever the difference in timing or rail densities per square mile, railway building in most parts of the periphery of the international economy, as in Africa, made their greatest contributions in terms of market-widening while establishing few direct linkages with local production. India, Thorner noted, 'alone of the countries with great railway networks is unindustrialised'.⁵³⁸ While acknowledging the role of the railways in the elimination of inter-regional price differences and the promotion of external trade, he argued that there was a lack of backward linkages, blaming the British for designing the transport system for the satisfaction of metropolitan rather than Indian needs.⁵³⁹

A parallel case is that of the Malayan railways, where Kaur found that backward linkages were negligible and that any benefits from the reduction of transport costs accrued disproportionately to the export sector.⁵⁴⁰ The pattern of railway development in the Gold Coast itself was influenced by the Malayan model advocated by Governors Maxwell and Rodger, both long-serving officials in the Malay Straits Settlements (see Chapters 2 and 3). The Mexican case, one of the few developing country railways to attract Fogel's social savings approach, provides another point of comparison. Coatsworth found that savings on freight operations were higher than in the advanced industrial nations, accounting for more than half of the increase in the productivity of the Mexican economy before 1910. However, he found

backward linkages to be weak, foreign exchange costs high and institutional effects negative.⁵⁴¹

Finally, a key feature of railway and sea port development in the Gold Coast over the three decades examined is the prevalence of corruption and fraudulent cost-cutting by British engineering firms. Such unethical, even blatantly unlawful, practices resulted in shoddy construction and technical defects, which necessitated expensive repairs and, in some instances, reconstruction of large sections of the projects at the expense of the taxpayer. Corruption was often euphemistically referred to as 'hurried work' or 'sharp practice' was partly responsible for poor safety records throughout the railway systems. Despite these damning findings, none of the private engineers involved were held accountable or penalised. Clearly, for some of the colonial expatriates, the tropics were simply a place to make a fortune then leave as quickly as possible. The belief, endemic in Ghana and other developing countries that private individuals and companies contracted to undertake public works projects can routinely get away with theft and graft may well be traced to the formative stages of large-scale colonial infrastructure projects.

Five major conclusions thus emerge about the connection between railway construction and economic development in colonial Africa, Asia and South America:

1. Gains accruing from the provision of transport services were generally higher than in the advanced industrial economies.
2. Backward linkages and spin-off effects to local production were negligible. Railway investment tended to reinforce existing technological and financial dependence on the advanced industrial nations.
3. The pattern of railway development and its social and welfare investments were strongly biased in favour of external trade and urban development, while the rural communities remained relatively underdeveloped.
4. Corrupt and fraudulent practices have had long-term implications for present attitudes towards government and public-owned facilities and resources in Ghana and other parts of the developing world.
5. The fact that British firms operating in colonies paid company tax to the UK Treasury, rather than the local colonial governments, demonstrates the extent to which the metropolitan power was prepared to sacrifice the needs of the colonised for its own financial interests.

Implications for Building a Better Future for the Tropics

If there is one lesson that Ghana and other post-colonial countries can learn from British colonisation, it is the value of keeping public records, even if they are not publicly available until after 30 years from the time events occurred. The open and transparent archival materials that the British have kept to this day pertaining to their colonial activities constitute one of the least appreciated but most valuable historical resources. In the context of innovations in information technology, developing country governments need to recognise the importance of public record keeping. Rather than adopting cavalier attitudes to information management, it is crucial that in undertaking developments, record keeping is not viewed as merely something that can be jettisoned due to financial constraints.

More than a century has passed since railway transport became available in Ghana and other parts of tropical Africa. Since then motor vehicles, as well as jumbo jets, have become routinely available to those who can afford them. Yet goods are still carried on the head as they have been for thousands of years.

This book suggests the need for more appropriate and affordable modes of transportation, which can provide significant backward linkages to local production and increase productivity, especially on the land, as well as improve equality of access to the benefit of technological innovation in Africa. Locally evolved or consciously borrowed and adapted, simple modes of transport operated relative efficiently by some of Africa's most marginalised groups⁵⁴² deserve urgent public policy attention. In this case, not only would backward linkages accrue directly to the local economies in the form of inputs for construction and maintenance, but as providers of transport services, such technologies would carry a second transport 'revolution' further to the African slums and rural communities. In the context of climate change and the search for energy-efficient, sustainable living, some of these African innovators may turn out to be important.

A related issue is timing in planning for development. From Britain, railway building spread to continental Europe and Tsarist Russia in one direction, and across the Atlantic to the Americas in the other. From the mid-nineteenth century, the British and other European powers started exporting the railway to India and other parts of Asia. It was only when railways approached saturation point in these parts of the world that

metropolitan interests turned to Africa, making the continent (excluding South Africa's white enclave) a latecomer on the railway scene.

The point here is that the origins of industrial technology can all be traced back to the British industrial revolution. No other society, with the possible exception of Japan, achieved industrial breakthrough independent of the benefits accruing from the original British revolution; technological innovation has always been one of timing and capacity to adapt in response to opportunity. In the context of the early twenty-first-century wave of investment interest in resource-rich Africa, development researchers and planners will do well by going back to the early twentieth century railway experience not only to learn from the past, but more importantly, to bring to justice some of the blatant abuses of the past.

The most telling revelation is the fact that the British commercial firms operating in the Gold Coast at the time, who were also the primary beneficiaries of railway and harbour policies, did not pay income or profit tax at all. While the UK Treasury was willing to share similar income taxes paid by British firms doing businesses in white settler dominions of New Zealand, Canada and Australia with the governments of these territories, the demands to extend such concessions to the Gold Coast were simply ignored. Equally revealing is the idea that British engineers contracted to undertake public work projects at the time could get away with graft with impunity. Some of the current NGO efforts focusing on aid and other forms of charity as the main vehicle to bring development to Africa are clearly better directed at forensic historical research to determine the precise nature and scale of these injustices. If for no other reason, such information and the associated opportunities which it provides to take possible legal actions for reparations, should serve as reminder to the present-day African policy-makers and their international and local business partners that the blatant abuse of power, no matter how long it took, was bound to come back to haunt the perpetrators.

While the climatic and ecological aspects of the tropics are easily defined; the less tangible social, cultural, political, linguistic and legal dimensions are more problematic. The environment had a significant, often dramatic, impact on the mobilisation of resources for the construction and running of the railways. Working hours and leave in Britain were intended to protect the health of expatriate staff from the draining effects of the tropics. Similarly, decisions as to where to locate the railway lines and ports, and the lopsided colonial economy that emerged, were directly or indirectly influenced by the resource endowments of the tropics. As for the mobilisation of capital for

railway investment and the associated public finance policies, laws and legal systems, and the evolution of the railway management systems, including trade unionisation, there was little distinctly tropical about them. As far as concepts of the tropics are concerned, the two defining features to emerge from my analysis are climatic conditions and the history of colonisation. The office of the Secretary of State for the Colonies in the UK has now become the present-day Minister for Overseas Development; the colonial origins of what is now known as international development – tropical development included – cannot be overstated.

As well as engaging with climatic conditions and the postcolonial, research and development in the tropics will also benefit from comparative approaches not only across tropical settings, but also between the tropic and the temperate. Comparing the Gold Coast and other colonial railway experience with those of their European and North American progenitors highlighted more sharply the opportunities and pitfalls of international developments in the tropics.

The fourth lesson is a need for greater attention to be paid to the development economists' concept of forward and backward linkages in planning and evaluating the effectiveness of development initiatives. In other words, whether in health services, education, gender equality, governance or environmental protection, it is vital that investment is assessed by two criteria. First are the direct benefits to the target population. The second is the extent to which there are spin-offs to the local economy in the form of demands for new goods and services. For example, if a clinic or school is built in a remote setting, the overall benefits will depend as much on quality of care or learning (forward linkages) as the extent to which the clinic or school is staffed by local people and/or the staff live and spend their wages locally; versus fly-in/fly-out residents saving the bulk of their incomes for property development or retirement elsewhere. Thus, for any given investment there will be trade-offs between the quality of the goods and services and the indirect benefits to the local economy in terms of externalities. Development research needs to engage more seriously with how best to strike an ethical and resource-efficient balance between the two. This is relevant not only in developing countries but also among Aboriginal Australian and other indigenous people in wealthy countries where so much is spent on health, education, welfare, employment and other research and development with minimal returns. Evaluation research can no longer

continue to ignore the important but little explored issue of backward linkages.

The fifth is how to strike a balance between the development interests and aspirations of the large majority of developing country populations and those of powerful international often mining and other investment capital, as well as the need for governments to be able to service public infrastructural loans to international creditors. An exceedingly conservative colonial finance policy prioritised the interests of British investments in railways and ports above all else, except when 'law and order' were at stake. This yielded relatively healthy annual budgets for most of the colonial era. The downside was that these policies left little scope for social development in what was supposed to be a model colony with an insatiable appetite for European learning. Yet, no more than 1 per cent of Gold Coast children attended primary school while only 1 per cent of the colony's population had access to health care facilities at the peak of the colonial era.

Postcolonial African leaders responded by pushing the public finance pendulum to the other extreme by investing massively in universal education, primary health care and agricultural extension services, often with stunning results in the short term. But in the absence of a sound economic base and taxation system to support massive social investments, most facilities failed. The expectation that profits from government investments in commercial enterprises would pay for the social investments did not materialise for a variety of reasons, not least corruption and managerial incompetence. What is clear is that the primary role of government in an economy is above all to provide the public infrastructure as well as a climate conducive to private investment. Taxation, rather than profits from direct government investments, should be the primary source of public expenditure. Irrespective of the development issues, it is imperative that development workers and researchers engage with the question of how best to generate or create wealth on the one hand, and the role of government in ensuring equity of access on the other.

The final lesson is that development and research in the tropics need to engage honestly and openly with the ethics of the relatively well-off living or interacting with the vulnerable, not least because relative deprivation, irrespective of absolute levels of poverty, is bad for health and wellbeing.⁵⁴³ The values and motives of the late nineteenth- and early twentieth-century railways protagonists discussed in this book are very different from those of present-day, often well-meaning and social justice-driven, international

development professionals. Yet I cannot help but see similarities between the pampered colonial expatriates living in the tropics and the relative affluence enjoyed today by development workers and researchers compared to the intended beneficiaries of their development efforts. How much their relative privilege makes them part of the problem or part of the solution ought to be an important starting point of their work.

What do these lessons mean for the researcher struggling to work out where to start in terms building a brighter future for the tropics? The first task is to define what is meant by a better future. Who defines a better future for the tropics and from whose point of view? I am not suggesting that we wait for the perfect, universally accepted definition before we act. The point rather is to be transparent and explicit in our definitions. As I argued in *Rethinking Development in Africa*, I find long-term research and development relationships to be critically important – 5, 10, even 20 years and not the 1-, 2- or at most 3-year funding cycles that are the norm. Empowerment and participatory approaches, akin to what Bent Flyvbjerg calls *phronesis*, are also helpful in building healthy and sustainable communities. Such approaches create the space for people of diverse interests, beliefs and positions of power to reflect on priority concerns– such as:

- What are our beliefs and attitudes about development, education, income inequality, corruption, drug and alcohol, HIV/AIDS, gender, and same-sex relationships, witchcraft and sorcery, etc.?
 - Where are these beliefs and attitudes coming from?
 - Who is benefiting from such beliefs and attitudes and who is losing out, and by what mechanisms of power?
 - Is the direction we are taking a good one?
 - What can we do to change things for the better?
 - If things are really changing for the better, what will be happening differently?



A woman buying a clock



Accra Beach in the height of the cocoa season



Accra hotel



Students under training

Chapter 1

1 Acting Administrator Lees to Secretary of State, 23 May 1874, Public Records Office, London (hereafter PRO) CO 96/107.

2 Great Britain, Parliamentary Papers, *Report on Economic Agricultural in the Gold Coast* (C. 5891, 1889), 32.

3 Governor Maxwell to Colonial Office, on Captain Lang's surveys, 1 July 1895, PRO: CO Print, Africa No. 451.

4 Ibid.

5 J. Silver, The Failure of European Mining Companies in the Nineteenth Century Gold Coast, *Journal of African History*, 22 (1981), 511–29.

6 Messrs Fitzgerald and Mercer to Colonial Office, 23 June 1879, PRO: CO 96/129 and 11 August 1879, PRO: CO 96/129.

7 Governor to Secretary of State forwarding Le Brun's proposal, 18 March 1881, CO Print Africa No. 451; F. Barry to Colonial Office, 28 July 1881, CO Print, Africa No. 451; Governor to Secretary of State forwarding the merchants' proposal, 19 May 1883, CO Print, Africa No. 451.

8 J.M. Hurd, Railways, in D. Kumar (ed.), *The Cambridge Economic History of India, Vol. 2. c. 1757–1970* (London, 1983), 738.

9 Robert Meade's undated minute, CO 96/136.

10 C.U. Ilegbune, Concessions Scramble and Land Alienation in British Southern Ghana, 1885–1916, *African Studies Review*, 29 (1976), 15–38.

11 Colonial Office to Messrs Fitzgerald and Mercer, 6 September 1879, CO Print, Africa No. 451.

12 Colonial Office to Messrs Bircham and Co., 25 March 1887, CO Print, Africa No. 451.

13 Colonial Office to Messrs Fitzgerald and Mercer, 6 September 1879, CO Print, Africa No. 451.

14 The Earl of Kimberley to Sir Samuel Rowe, Governor of the Gold Coast, 4 April 1881, C. Print, Africa No. 451.

15 Colonial Office Memorandum, December 1886, CO Print, Africa No. 451.

16 The Earl of Derby to Sir Samuel Rowe 25 July 1883, CO Print, Africa No. 451.

17 Governor Griffith to Lord Knutsford, 25 March 1889, CO Print, Africa No. 451.

18 P.R. Gould, *The Development of Transportation Pattern in Ghana* (Evanston, 1960), 21.

19 H.P. White, The Togoland Railways, *Railway Magazine*, May 1955, 343–9.

20 Minute by R. Herbert, Colonial Office, 2 February 1890, PRO: CO 879/38.

21 London Chamber of Commerce to Colonial Office, 8 March 1890, CO Print, Africa No. 451.

22 Manchester Chamber of Commerce to Colonial Office, 20 September 1893, CO Print, Africa No. 451.

23 Colonial Office Memorandum dated 30 January 1890, CO Print, Africa No. 451.

24 GBPP, Report on Economic Agriculture, 32.

25 Crown Agents to the Colonial Office, 27 January 1890, CO Print, Africa No. 451.

26 Governor Griffith to Colonial Office, 24 October 1892, CO Print, Africa No. 451.

27 O. Omosini, Railway Projects and British Attitude towards the Development of West Africa, 1872–1903, *Journal of the Historical Society of Nigeria*, 4 (1971), 491–507.

28 Lord Knutsford to Governor Griffith 3 May 1892, CO Print, Africa No. 451.

29 Governor Griffith to Secretary of State, 20 September 1893, CO Print, Africa No. 451.

30 Lang's report with maps, October 1894, and Shelford's report, March 1895, enclosed in Crown Agents to Colonial Office, 19 March 1895, CO Print, Africa No. 464.

31 Minutes of meeting between delegates of London, Manchester, Liverpool and Glasgow Chambers of Commerce and the Secretary of State, 25 June 1895, CO Print, Africa No. 451.

Chapter 2

32 P. Fraser, *Joseph Chamberlain, Radicalism and Empire, 1868–1914* (London, 1966), Introduction and 1–10.

33 See R.E. Dummett, Joseph Chamberlain, Imperial Finance, and Railway Policy in British West Africa in the Late Nineteenth Century, *English Historical Review*, 90 (1975), 287–321.

34 Ibid., Chamberlain's speech in House of Commons, 20 March 1893.

35 Colonial Office Minute on the Proposed West African Railway Schemes, 20 August 1895, PRO: CO 96/260.

36 Ibid.

37 See Great Britain, Parliamentary Papers, Papers Relating to the Construction of Railways in Sierra Leone, Lagos and the Gold Coast, December 1904, (Cd. 2325), 23–6.

38 Colonial Office instructions to Sir William Maxwell on his appointment as Governor, 20 March 1895, GBPP, *Affairs in Ashanti* (C. 7918), 1896.

39 R. Heussler, *British Rule in Malaya – the Malayan Civil Service and its Predecessors, 1867–1942* (London, 1981), 36.

40 A. Kaur, The Impact of Railroads on the Malayan Economy, 1874–1941, *Journal of Asian Studies*, 39 (1979–80), 693–710.

41 Governor Maxwell to Secretary of State, 23 April 1895, CO Print, Africa No. 513.

42 Ibid., Maxwell's speech to mine owners at Tarkwa, April 1895.

43 Ibid.

44 Minutes of meeting between Sir William Maxwell and Accra Chamber of Commerce, 16 May 1895, CO Print, Africa No. 513.

45 Maxwell to Marquess of Ripon, 1 July 1895, CO Print, Africa, No. 513.

46 Ibid.

47 The Trade and Mining Industry of the Gold Coast, 1895–1899, *The Economist*, 7 October 1899.

48 Government Secretariat Minute, Accra, 16 May 1895, CO Print, Africa, No. 513.

49 Manchester Chamber of Commerce to Colonial Office, 18 July 1895, CO Print, Africa No. 513.

50 Colonial Office Minutes, 10 December 1895, CO Print, Africa, No. 513.

51 Wassau (Gold Coast) Mining Company Limited to Colonial Office, 19 August 1897; and Castle Gold Exploration Syndicate Limited to Colonial Office, 22 July 1897, CO Print, Africa No. 531.

52 GBPP, Railways in Sierra Leone, Lagos and Gold Coast, 7.

53 Ibid.

54 Colonial Office Minutes on Tarkwa Railway Conference, 16 June 1898, CO Print, Africa No. 531.

55 GBPP, Railways in Sierra Leone, Lagos and Gold Coast, 8.

56 Ibid., 19.

57 Ibid.

58 Ibid., 14.

59 Ibid., 8.

60 Acting Governor Hodgson to Secretary of State on Future Railway Development, 16 September 1898, CO Print, Africa No. 531.

61 W.R. Feldtman, The Ashanti Goldfields Corporation, *The Mining Magazine*, May 1916, 257–68.

62 According to Maxwell's intelligence sources in Ashanti, Biney and his colleagues employed a total of 200 labourers on the mines in 1895. Governor Maxwell to Joseph Chamberlain, 22 October 1895, CO Print, Africa No. 513.

63 Ibid.

64 E.A. Cade of 2 Aldermanbury Postern, London to Colonial Office, 17 December 1896, CO Print, Africa No. 513; also Messrs. Edell and Gordon to Colonial Office, 13 April 1897, CO Print, Africa No. 531.

65 Crown Agents to Colonial Office on Ashanti Goldfields Corporation, 13 February 1900, CO Print, Africa No. 578.

66 Ibid.

67 See GBPP, Gold Coast, Laws and Regulations Affecting Lands, Mines and the Labour of Natives, 1901 (Cd. 575), 28.

68 Fred Gordon to Colonial Office, August 1898, CO Print, Africa No. 531.

69 Colonial Office to Ashanti Goldfields Corporation, 16 August 1898, CO Print, Africa No. 531.

70 See Crown Agents despatch, 13 February 1900, CO Print, Africa No. 578.

71 Acting Governor Hodgson to Colonial Office, 19 November 1899, CO Print, Africa No. 578.

72 Chamberlain to Crown Agents, 12 April 1900, CO Print, Africa, No. 578.

73 Chamberlain to Acting Governor Hodgson, 20 March 1900, CO Print, Africa No. 578.

74 GBPP, Railways in Sierra Leone, Lagos and Gold Coast, 25.

75 Ibid., 8.

76 Ibid.

77 Resident Engineer to Crown Agents, Fortification of Stations in Ashanti, 21 April 1902, PRO: CO 96/400.

78 GBPP, Railways in Sierra Leone, Lagos and Gold Coast, 19.

79 Governor Rodger to Secretary of State, Criticisms of Sekondi–Kumasi Railway, 28 January 1905, PRO: CO 96/651.

80 Ibid.

81 Extract from Captain A.W. Morris's private diary, quoted in Director of Public Works, *Gold Coast Railways, with Information about the Country* (Accra, 1925), 7.

82 Agbodeka, *African Politics*, 166–8.

83 When news of the Cade concession reached the Asantehene in 1895, he ordered the Bekwaihene to turn out the 'stranger', to which Nana Osai replied that he could not because the white man had paid a debt of £200 on his behalf. See Maxwell to Chamberlain, 22 October 1895, CO Print, Africa No. 513.

84 Agbodeka, *African Politics*, 172.

85 Gold Coast, Annual Administrative Report for the Half-Year Ending 30 June 1904 (Accra, 1905), 409.

86 Colonial Office Minute, Policy with Regard to Railway Concessions in the Gold Coast, July 1901, PRO: CO 96/385.

87 Messrs. Shelford and Co. to Crown Agents on the Prestea branch line, 3 March 1903, PRO: CO 96/412.

88 Percy Turbutt to Crown Agents, 21 April 1903, PRO: CO 96/412; see also Crown Agents to Secretary of State, 11 August 1904, PRO: CO 96/412.

89 Edward Davies to Crown Agents, 1 February 1906, PRO: CO 96/427; see also Messrs Ommaney and Rendell, solicitors for Fanti Consolidated Mines to Crown Agents, 22 April 1907, PRO: CO 96/461.

90 GCOP, *Annual Report on the Gold Coast*, 1911, 1912 (Cd. 5467), 37.

Chapter 3

91 Acting Governor Hodgson's correspondence with the Colonial Office 4 May 1898, and 3 August 1898, CO Print, Africa No. 531.

92 Governor Nathan to Joseph Chamberlain, 17 March 1902, PRO: CO 96/395.

93 Governor Maxwell to Secretary of State, 15 October 1904, PRO: CO 96/427.

94 Accra Chamber of Commerce to Colonial Secretary, 7 May 1907, PRO: CO 96/461.

95 Secretary for Native Affairs, Accra, Minute of 28 October 1906, PRO: CO 96/461.

96 Crown Agents to Colonial Office, 18 January 1909, PRO: CO 96/448.

97 Ibid., West African Section of the London Chamber of Commerce to Crown Agents, 4 December 1908.

98 Ibid.

99 GCOP, Annual Reports on the Railway Department: 1904–1930, General Manager, *Railways Report*, 1910, 6.

100 General Manager, *Railways Report*, 1911, 8–10.

101 Messrs. Cooper and Shelford to Crown Agents (forwarding inspection engineer's report), 19 February 1911, PRO: CO 96/501.

102 Governor Rodger to Secretary to State, 28 April 1910, PRO: CO 96/501.

103 Ibid.

104 Ibid.

105 Secretary to State to Crown Agents, 23 November 1915, PRO: CO 96/562.

106 Secretary of State's telegram to Governor, 10 April 1917. PRO: CO 96/581.

107 Governor's confidential despatch, 18 April 1917, PRO: CO 96/581.

108 Secretary of State to Governor, 14 May 1917, PRO: CO 96/581.

109 Messrs Coode, Son and Mathews, Report on Gold Coast Harbours, 1898, in Crown Agents to Colonial Office, 10 March 1898, CO Print, Africa No. 563.

110 F. Guggisberg, *The Gold Coast, A Review of the Events of 1920–1926 and the Prospects for 1927–28* (Accra, 1927), 85–92.

-
- 111 General Manager, *Railways Report*, 1904, 17.
112 Crown Agents to Colonial Office, 9 May 1903, PRO: CO 96/412.
113 Colonial Office Minute, 11 March 1908, PRO: CO 96/448.
114 Ibid.
115 General Manager, *Railways Report*, 1915, 19.
116 Governor Rodger to Colonial Office (on the Accra harbour works),
11 January 1905, PRO: CO 96/424.
117 General Manager, *Railways Report*, 1910, 14.
118 Messrs. Coode, Mathews and Fitzmaurice and Wilson to Crown
Agents on Accra Harbour, 9 February 1917, PRO: CO 96/483.
119 Ibid.
120 Ibid.
121 Ibid.
122 General Manager, *Railways Report*, 1920, 11.

Chapter 4

- 123 Secretary of State for the Colonies to Governor of the Gold Coast,
29 December 1917, PRO: CO 96/584; also S.H. Ford, Manganese in West
Africa, *The Mining Magazine*, 7 (December 1919), 270–2.
124 Ibid.
125 E.A. Brett, *Colonialism and Underdevelopment in East Africa* (London,
1973), 115.
126 J. Marlowe, *Milner Apostle of Empire* (London, 1976), 324.
127 A. Bigland, The Empire Assets and How to Use Them, *Journal of the
Royal Society of Arts*, LWV (1917).
128 Cabinet Papers, Minutes of the Meeting of 25 November 1919,
quoted in Brett, *Colonialism and Underdevelopment*, 115.
129 I.M. Drummond, *British Economic Policy and the Empire* (London,
1919), 43; also L.S. Amery, *My Political Life*, Vol. 2 (London, 1953), 210.
130 A. Milner, Crown Colonies, *The Nation and the Empire* (London,
1913), 468.
131 T.H. O'Brien, *Milner: Viscount Milner of St. James' and Cape Town*
(London, 1919), 324.
132 Ibid., 350.
133 See Antrobus's Minute to Secretary of State, 17 November 1919,
PRO: CO 96/612.

-
- 134 Amery, *My Political Life*, 188.
- 135 See R.E. Wraith, *Guggisberg* (London, 1967), 24–54.
- 136 GBPP, Governor's Annual Address, *Legislative Council Debates*, 1921–22, 29–48.
- 137 Edward Davies to Colonial Office, 21 March 1918, PRO: CO 96/584; also see Ford, Manganese, *Mining Magazine*, 7 (1919), 270–2.
- 138 GBPP, Messrs. Stewart and McDonnell, *Report on the Takoradi Harbour and Railway Terminus* (London, 1920), 30.
- 139 See Guggisberg to Secretary of State (on Transportation), 9 November, 1920, PRO: CO 96/619.
- 140 GBPP, See Despatches Relating to the Construction of a Railway between Kumasi and the Northern Territories of the Gold Coast, Sessional Paper No. XIV, 1929–30.
- 141 Guggisberg to Secretary of State, 9 November 1920, PRO: CO 96/619.
- 142 Ibid.
- 143 Stewart and McDonnell, *Takoradi Harbour*, 6–8.
- 144 Colonial Office Minute of 13 September 1924, PRO: CO 96/651.
- 145 Colonial Office Memorandum on Takoradi Harbour, 7 August 1928, PRO: CO 96/681.
- 146 Colonial Office Memorandum on Takoradi, 13 December 1930, PRO: CO 96/694.
- 147 See Governor's Memorandum of 3 March 1926 (on Transportation) to Honourable Omsby-Gore, Visiting Parliamentary Under-Secretary of State for the Colonies, PRO: CO 96/663.
- 148 GBPP, General Manager, *Railways Project*, 1922–3, 22–7.
- 149 See Despatches Relating to the Construction of a Railway between Kumasi and the Northern Territories of the Gold Coast, Sessional Paper No. XIV, 1929–30.
- 150 Governor to Secretary of State, 14 March, 1924, PRO: CO 96/612.
- 151 Gold Coast, Correspondence Relating to the Construction of the Central Province Railway, Sessional Paper No. 14 of 1922–23 (1923), 21.
- 152 Ibid., 25–7.
- 153 West African Section of London Chamber of Commerce to Colonial Office, 22 December 1922, PRO: CO 96/635.
- 154 Central Province Railway, 29–30.

155 Ibid., Memorandum submitted by Omanhene of Assin, September 1923.

156 See Antrobus's Minute, Colonial Office, September 1924, PRO: CO 96/651.

157 Governor to Secretary of State, 18 August 1927, PRO: CO 96/681.

158 Ibid.

159 *Report of the Central Province Trade Routes Committee*, Sessional Paper No. 6, 1928–29 (1929), General Manager of Railways' Memorandum of 26 May 1928, enclosed as appendix IV.

160 See Guggisberg, *Events*, 72–3.

161 J. Crisp, *The Story of an African Working Class, Ghanaian Miners' Struggles, 1870–1980* (London, 1984), 19.

162 *Government Gazette*, 20 December 1898.

163 Resident Engineer to Governor, 16 June 1899, enclosed in Governor to Secretary of State, 1 July 1899, PRO: CO 96/358.

164 GBPP, *Papers Relating to the Construction of Railways in Sierra Leone, Lagos and the Gold Coast*, Cd 2325 (1904), 7–14.

165 Ibid., 13

166 Ibid., 14.

167 Governor to Secretary of State, 8 January 1897, PRO: CO 96/288.

168 Commissioner, Western Province, to Governor 5 January 1900, enclosed in Governor to Secretary of State, 20 January 1900, PRO: CO 96/358; see also Nathan's correspondence with the Congo Railways on the subject. Enclosure 2, Translation, N. Cito, Director, Congo Railways to Governor, 10 February 1903, PRO: CO 96/416.

169 Governor to Secretary to State, February 1900, PRO: CO 96/358.

170 Governor's circular, undated, enclosed in Governor to Secretary of State, 23 December 1900, PRO: CO 96/377.

171 Governor to Secretary of State, 10 October 1900, PRO: CO 96/363.

172 Colonial Secretary's Minute dated December 1900, enclosed in Governor to Secretary of State, 23 December 1900, PRO: CO 96/377.

173 Chief Engineer to Governor, 4 January 1902, enclosed in Governor to Secretary of State, 21 January 1902, PRO: CO 96/394.

174 Ibid.

175 Crown Agents to Colonial Office, June 1901 and Governor to Colonial Office, May 1902, PRO: CO 96/400.

176 Governor Nathan to Chamberlain, December 1900, PRO: CO 96/377.

177 Chamberlain to Nathan, 23 December 1900, PRO: CO 96/377.

178 Resident Engineer's telegram to Governor, 28 December 1900, enclosed in Governor to Secretary of State, 7 October 1901, CO 96/381.

179 Governor to Colonial Office, May 1902, PRO: CO 96/400.

180 Chief Accountant to Governor, 25 July 1902, enclosed in Governor to Secretary of State, 3 August 1902, PRO: CO 96/400.

181 Crown Agents to Colonial Office, August 1902, PRO: CO 96/400.

182 Governor to Secretary of State, 3 August 1900, PRO: CO 96/358.

183 Governor to Secretary to State, 19 October 1901, PRO: CO 96/381.

184 Acting Governor Bryan to Lord Crewe, 21 June 1909, PRO: CO 96/484.

185 Ibid.

186 General Manager, *Railways Report*, 1910, 11.

187 Ibid.

188 Bryan to Lord Crewe, 21 June 1909, PRO: CO 96/484.

189 General Manager, *Railways Report*, 1913, 14.

190 Governor to Colonial Office, 21 June 1909, PRO: CO 96/484.

191 Governor to Colonial Office, 27 March 1915, PRO: CO 96/520.

192 Governor to Secretary of State, 20 November 1919, PRO: CO 96/600.

193 General Manager, *Railways Report*, 1920, 14, 15.

194 K.D. Patterson, 'The Influenza Epidemic of 1918–19 in the Gold Coast', *Journal of African History*, 24 (1983), 485–502.

195 Governor to Secretary of State, Labour Conditions, 21 May 1920, PRO: CO 96/612.

196 Ibid.; also see Report by W.G. Ormsby-Gore, Under-Secretary of State for the Colonies, on his visit to West Africa during the year 1926, Cmd. 2744, 1926, 174.

197 Proceedings of the Conference on Labour held in the Legislative Council Chamber, Accra, 24–25 November 1919, enclosed in Governor to Secretary of State, Labour Conditions, 21 May 1920, PRO: CO 96/612.

198 Ibid.

199 Ibid., 'The Central Labour Bureau – Memorandum written in Continuation of the Proceedings of the Labour Conference held at Accra, 24 November 1919.'

-
- 200 General Manager, *Railways Report*, 1922–23, 19.
- 201 General Manager, *Railways Report*, 1922, 14.
- 202 Ibid.
- 203 See Secretary of Native Affairs, Mr Furley's lengthy memorandum on Asafo Companies, May 1922, enclosed in Governor to Secretary of State, 5 June 1922, PRO: CO 96/652.
- 204 Jarle Simensen, The Asafo of Kwahu, Ghana: A Mass Movement for Local Reform under Colonial Rule, *International Journal of African Historical Studies*, VIII, 3 (1975).
- 205 Labour Report from W. Price-Jones, Acting District Commissioner, Addah to Commissioner for Eastern Province, April 1920, enclosed in Mr Furley's memorandum on Asafo Companies.
- 206 *Gold Coast Leader*, 6 October 1922, quoted in Simenson, *The Asafo of Kwahu*.
- 207 Governor to Secretary of State, 21 May 1920, PRO: CO 96/612; see also Ormsby-Gore, *Visit to West Africa*, 176.
- 208 J. Simensen, Rural Mass Action in the Context of Anti-Colonial Protest: The Asafo Movement of Akim Abuakwa, Ghana, *Canadian Journal of African Studies*, VII, 19 (1974), 25–41.
- 209 Governor to Secretary of State, Takoradi Labour Returns, 30 March 1923, PRO: CO 96/638.
- 210 Governor to Secretary of State, December 1922, PRO: CO 96/638; Governor to Secretary of State, 6 May 1923, PRO: CO 96/638; and Governor to Secretary of State, 10 April 1924, PRO: CO 96/644.
- 211 General Manager, *Railways Report*, 1925–26, 13–16.
- 212 See GBPP, *Railway Construction in Sierra Leone, Lagos and Gold Coast*, 17–18.
- 213 General Manager, *Railways Report*, 1925–26, 16.

Chapter 6

- 214 Kellet, *The Impact of Railways*, 17.
- 215 L.E. Decker, *Railroads, Lands and Politics: The Taxation of the Railroad Loan Grants, 1864–1897* (Chicago, 1964), 6–8.
- 216 Stover, *American Railroads*, 91.
- 217 E.D. Morel, *Affairs of West Africa* (London, 1902), 170, quoted in Olufemi Omosini, *The Gold Coast Land Question, 1894–1990: Some Issues*

Raised on West Africa's Economic Development, *International Journal of American Historical Studies*, 3 (1972), 453–69.

218 R. Van Zwannerberg with Anne King, *An Economic History of Kenya and Uganda 1800–1970* (London, 1975), 34.

219 *Government Gazette*, March 1876.

220 Colonial Office to Messrs Fitz-Gerald and Mercer, September 1879, PRO: CO Print, No. 451.

221 Ibid.

222 Crown Agents to Colonial Office, 14 June 1898, quoted in Colonial Office to Governor, 25 January 1900, PRO: CO 96/380.

223 Chamberlain to Governor, 20 June 1898, quoted in Colonial Office to Governor, 25 January 1900, PRO: CO 96/380.

224 Acting Governor Hodgson to Colonial Office, 13 January 1899, PRO: CO 96/380.

225 Consulting Engineers to Crown Agents, on the problem of fallen trees, 1 September 1908, PRO: CO 96/474.

226 Nathan to Acting Chief Commissioner, 27 November 1901; also Nathan's public address at Kumasi, 14 March 1901, enclosed in Governor to Colonial Office, 31 December 1924, PRO: CO 96/650.

227 Chief Commissioner's telegram to Governor, 2 March 1909, enclosed in Governor to Colonial Office, 31 December 1924; PRO: CO 96/650.

228 Sir Hugh Clifford to Chief Commissioner, 19 January 1918, and Mr Philbrick's memorandum, 20 March 1918, enclosed in Governor to Colonial Office, 31 December 1924, PRO: CO 96/650.

229 Ibid.

230 *Government Gazette*, 31 January 1898.

231 *Government Gazette*, 30 April 1898.

232 *Government Gazette*, 2 July 1898.

233 *Government Gazette*, 20 August 1898.

234 *Government Gazette*, 29 March 1902.

235 Nathan's public address, Kumasi, 14 March 1901, enclosed in Governor to Colonial Office, 31 December 1924, PRO: CO 96/650.

236 *Government Gazette*, 18 June 1921, and Governor to Colonial Office, 19 July 19124, PRO: CO 96/646.

237 Colonial Secretary's minute, 16 December 1919, enclosed in Governor to Secretary of State, 24 August 1920; PRO: CO 96/616.

238 Mr Furley's minute to Governor, quoted in Governor to Secretary of State, 19 July 1924, PRO: CO 96/646.

239 Commissioner of Western Province to Governor, 8 November 1920, enclosed in Governor to Secretary of State, 19 July 1924, PRO: CO 96/646.

240 Ibid.

241 'With regard to revenue to be derived from other sources the committee are of opinion that rents payable from land within the proposed township should form part of the Harbour Revenue . . .' Gold Coast Sessional Paper No. 8, 1920–21, 62.

242 *Government Gazette*, 16 March 1921.

243 Report of Inquiry held at Sekondi from 9 June to 7 July 1924, Enclosure I in Governor to Secretary of State, 19 July 1924, PRO: CO 96/646.

244 Aitken's telegram to Governor, 20 June 1924, enclosed in Governor to Secretary of State, 19 July, 1924, PRO: CO 96/646.

245 Ibid.

246 Commissioner, Western Province to Governor, 31 December 1923; also District Commissioner, Sekondi to Governor, 27 December 1923; and Provincial Engineer, Western Province to Governor, 19 February 1924, all enclosed in Governor to Secretary of State, 19 July 1924, PRO: CO 96/646.

247 *Government Gazette*, 28 June 1919.

248 Minutes of the Legislative Council Debates, 25 February 1922, 1922–23; also Governor to Secretary of State 24 August 19209, PRO: CO 96/616.

249 Ibid.

250 Statement showing area of land owned by government in each province and district in the Gold Coast in relation to total area, Sessional Papers, No. 7, 1931–32 (1932).

251 Earl Grey, *The Colonial Policy of Lord Russell's Administration* (London, 1853), 281.

252 The first public loan to be raised by Sierra Leone under the 1877 Act was issued at 6 per cent interest but failed to attract buyers. See Hemming's minute to Lord Knutsford, 12 October 1889, CO Print, Africa No. 464.

253 R.M. Kesner, *Economic Control and Colonial Development: Crown Colony Financial Management in the Age of Joseph Chamberlain* (London, 1982), 293.

254 Sir Edward Hamilton to Colonial Office on Suez Canal shares scheme, 14 September 1895, PRO: CO Print, Africa No. 464.

255 Hamilton to Colonial Office, 10 October 1895, PRO: CO Print, Africa No. 464.

256 See Hicks Beach's minute to Hamilton, 16 October 1895, quoted in Kesner, *Economic Control and Colonial Development*, 76.

257 See Crown Agents' minute, 14 December 1899, on the Colonial Loans Act 1899, PRO: African Confidential Print, No 563.

258 Ibid.

259 Ibid.

260 Crown Agents to Colonial Office, 27 March 1902, PRO: CO 96/400.

261 See Guggisberg's despatch to the Secretary of State on the state of public health and native education, 16 April 1921, PRO: CO 96/623.

262 R.H. Green and S.H. Hymer, *Cocoa in the Gold Coast: A Study in the Relations between African Farmers and Agricultural Experts*, *Journal of Economic History*, XXVI (1966).

263 D. Kimble, *A Political History of Ghana, 1850–1928* (London, 1963), 168–91.

264 Ibid.

265 Governor to Secretary of State, 18 April 1896, PRO: 96/314.

266 Governor to Secretary of State, 18 February 1921, PRO: CO 96/623.

267 See H. Bushe's minute on Guggisberg's proposal, Colonial Office 22 March 1921, PRO: 96/623.

268 Chandler, *The Railroads*.

269 Crown Agents to Colonial Office, 16 June 1905, PRO: CO 96/424.

270 Consulting Engineers to Crown Agents, 21 June 1905, PRO: CO 96/424.

271 General Manager, *Railways Report*, 1909, 18.

272 Governor to Colonial Office, 17 April 1905, PRO: CO 96/429.

273 General Manager, *Railways Reports*, 1910, 13.

274 General Manager, *Railways Reports*, 1923–24, 7.

275 Report of the Railway Revenue Committee, Gold Coast Papers No. 3, 1932, 37–8.

276 Crown Agents to Colonial Office, 3 April 1902, PRO: CO 96/386.

277 Mansfield to Colonial Office, 7 August 1905, PRO: CO 96/424.

278 Crown Agents' Minute, 28 July 1905, PRO: CO 96/424.

279 Governor to Secretary of State, 16 June 1906, PRO: CO 96/443.

280 Crown Agents' Minute, 28 July 1905, PRO: CO 96/424.

281 F.G. Guggisberg, *The Gold Coast, A Review of the Events of 1920–1926 and the Prospects for 1927–28* (Accra, 1927), 18.

282 Ibid., 20.

283 Ibid., Colonel Hammond, *Report on the Gold Coast Railways* (London, 1922), 11.

284 H. Myint, *Economic Theory and the Underdeveloped Countries* (1981), 107, quoted in G. Chada, *Labour Protest, Group Consciousness and Trade Unionism in West Africa: The Radical Railway Workers of Colonial Ghana, 1900–1950* (PhD thesis, University of Toronto, 1981), 122.

285 Governor to Colonial Office, 6 June 1907, PRO: CO 96/460.

286 General Manager to Governor, 7 April 1905, enclosure in Governor to Secretary of State, 17 April 1905, PRO: CO 96/429.

287 Enclosure 2, Jamaican Correspondence, J.A. Swathram to Governor Rodger, 16 October 1906, enclosed in Roger to Secretary of State, 14 July 1908, PRO: CO 96/470.

288 General Manager, *Railway Report*, 1908, 4.

289 Governor to Secretary of State, 17 June 1906, PRO: CO 96/443.

290 Crown Agents to Secretary of State, 25 June 1902, PRO: CO 96/400.

291 Report on the Construction of Railways in West Africa, (1904), Cd 2325, 23.

292 General Manager, *Railway Report*, 1910, 14.

293 W.D. Waghon, *Report on the Gold Coast Railways*, 1912, 17.

294 Guggisberg's Memorandum to the Honourable Omsby-Gore, 3 March 1926, PRO: CO 96/663.

295 Acting Governor Bryan to Elgin, 14 June 1906, PRO: CO 96/443.

296 General Manager, *Railways Report*, 1922–23, 19.

297 Guggisberg's Memorandum to Omsby-Gore, 3 March 1926, PRO: CO 96/663.

298 Ibid.

299 General Manager, *Railways Report*, 1910, 19.

300 General Manager, *Railways Report*, 1912, 9.

301 General Manager, *Railways Report*, 1907, 21.

302 General Manager, *Railways Report*, 1916, 27.

303 General Manager, *Railways Report*, 1915, 22.

304 General Manager, *Railways Report*, 1916, 9.

305 Ibid.

306 Report and Recommendations of a Committee Appointed to Consider the Conditions of Service of Railway Native Mechanics, Sessional Paper No. XIX, 1918–19, 1919.

307 Ibid.

308 Ibid.

309 Memorandum suggesting difficulties as regards the proposed extension of pensionable rights to the daily paid staff of the railways, General Manager, Sekondi, 1919, Appendix XV, in *Railway Mechanics Report*.

310 Petition from Locomotive Native Staff, Accra, 26 August 1918, in *Railway Mechanics Report*, Appendix VI.

311 General Manager of Railway's Memorandum in *Railway Mechanics Report*, Appendix XV.

312 Ibid.

313 C.H. Harper, Memorandum dated 21 January 1919, quoted in *Railways Mechanics' Report*.

314 General Manager, *Railways Report*, 1919, 10.

315 Governor to Secretary of State, March 1922, Sessional Paper XII, 1922–23, 1923.

316 General Manager, *Railways Report*, 1919, 10.

317 General Manager, *Railways Report*, 1922–23, 15.

318 Ibid., 25.

319 'High wages and general unrest in the industrial world had resulted in an unprecedented rise in the price of European goods. So long as the farmers were benefitting from the high price of cocoa during the boom of 1919–20, the high cost of imported articles did not prevent them from buying, but when during 1920 cocoa steadily fell from £122 to £39 per ton, purchasing power became severely affected. Consequently, the sale of European goods decreased. Merchants thereupon reduced their prices to the extent of selling at a loss . . .' Guggisberg's address to the Legislative Council, 1922–26, 5.

320 Chada, Radical Railway Workers of Colonial Ghana; R. Jeffries, *Class, Power and Ideology in Ghana: the Railwaymen of Sekondi* (Cambridge, 1978).

321 See R. Sandbrook and R. Cohen (eds.), *The Development of an African Working Class* (London, 1975); P. Gutkind, R. Cohen and J. Copans (eds.), *African Labour History* (1978).

322 See A. Hughes and R. Cohen, Nigeria's Working Class, in P. Gutkind, R. Cohen and S.J. Copans, *African Labour History* (London, 1978), 31–55.

-
- 323 Chada, *Radical Railway Workers*, 197–215.
324 Chada, *Radical Railway Workers*, 197–215.
325 Hughes and Cohen, Nigeria's Working Class, in Gutkind et al., 31–55; H.E. Conway, Labour Protest Activity in Sierra Leone During the Early Part of the Twentieth Century, *Labour History* (Canberra), No. 15, November 1968.
326 Chada, *Radical Railway Workers*, 196.
327 Ibid., 205.
328 Jeffries, *Class, Power and Ideology*, 29.

Chapter 9

- 329 General Manager, *Gold Coast Railways Annual Report*, 1904, 8.
330 General Manager, *Railways Report*, 1908, 3.
331 General Manager, *Railways Report*, 1904, 4.
332 Ibid.
333 General Manager, *Railways Report*, 1909, 8.
334 General Manager, *Railways Report*, 1908, 8.
335 General Manager, *Railways Report*, 1913, 15.
336 General Manager, *Railways Report*, 1906, 9.
337 See Despatches Relating to Kumasi Water Supply Scheme, Sessional Paper, No. 7 (1930–31).
338 General Manager, *Railways Report*, 1926–27, 34.
339 General Manager, *Railways Report*, 1904, 8.
340 Crown Agents to Colonial Office, 14 March 1904, PRO: CO 96/423.
341 Ibid.
342 General Manager, *Railways Report*, 1912, 5.
343 General Manager, *Railways Report*, 1916, 15.
344 General Manager, *Railways Report*, 1925–26, 18.
345 Crown Agents to Secretary of State, 20 April 1903, PRO: CO 96/412.
346 Ibid.
347 London Chamber of Commerce to Colonial Office, 29 April 1903, PRO: CO 96/412.
348 GBPP, Construction of the Railways in Sierra Leone, 17.
349 London Chamber of Commerce to Colonial Office, 20 April 1903, PRO: CO 94/412.

-
- 350 General Manager, *Railways Report*, 1904, 7.
- 351 Ibid.
- 352 Crown Agents to Consulting Engineers, 19 April 1905, PRO: CO 96/424.
- 353 London Chamber of Commerce to Colonial Office, 29 April 1903, PRO: CO 96/412.
- 354 Petition signed by thirteen mining companies to the Secretary of State protesting at the high rates on the Gold Coast railway, 14 January 1904, enclosed in Consulting Engineers to Crown Agents, 10 December 1904, PRO: CO 96/424.
- 355 Consulting Engineers to Crown Agents, 27 March, 1905, PRO: CO 96/427.
- 356 General Manager to Governor, 13 March 1905, enclosed in Governor to Secretary of State, first April 1905, PRO: CO 96/427.
- 357 Ibid.
- 358 Governor to Secretary of State, 7 February 1905, PRO: CO 96/427.
- 359 Ibid.
- 360 General Manager, *Railways Report*, 1905, 25.
- 361 Colonial Office Minute, 25 July 1905, PRO: CO 96/431.
- 362 Secretary of State to Governor, 6 February 1906, PRO: CO 96/444.
- 363 Governor to Secretary of State, forwarding petition from Giles Hunt, President of Gold Coast Mine Managers Association and Unofficial Member of the Legislative Council, 11 September 1905, PRO: CO 96/432.
- 364 Consulting Engineers to Crown Agents, 10 October 1905, PRO: CO 96/432.
- 365 Governor to Secretary of State, 30 December 1905, PRO: CO 96/433.
- 366 Ibid.
- 367 Secretary of State to Crown Agents, 7 March 1907, PRO: CO 96/447.
- 368 Colonial Office Minute on the Joint West African Committee, 1 January 1909, PRO: CO 96/448.
- 369 Consulting Engineers to Crown Agents, 12 April 1910, PRO: CO 96/501.
- 370 General Manager, *Railways Report*, 1911, 2.
- 371 General Manager, *Railways Report*, 1912, 24.
- 372 Governor to Lewis Harcourt, 1 May 1915, PRO: CO 96/557.

-
- 373 General Manager, *Railways Reports*, 1914–20.
- 374 F.G. Guggisberg, *The Gold Coast, A Review of the Events of 1920–1926 and the Prospects for 1927–28* (Accra, 1927), 79.
- 375 Ibid., 80.
- 376 Ibid., 81.
- 377 General Manager, *Railways Report*, 1908, 12.
- 378 General Manager, *Railways Report*, 1920, 20.
- 379 Correspondence Relating to the General Reduction of Railway Rates in the Gold Coast, 1929, 1.
- 380 Ibid., 7.
- 381 Ibid., 10.
- 382 Ibid., 7.
- 383 Ibid.
- 384 Report of the Railway Revenue Committee, 32.
- 385 Report of the Central Province Trade Routes Committee, 29.
- 386 D.H. Aldcroft, The Efficiency and Enterprise of British Railways, 1870–1914, *Exploration in Entrepreneurial History*, 5 (1967–68), 158–74.
- 387 General Manager, *Railways Report*, 1915, 21.
- 388 Governor's Memorandum on Transportation, 3 March 1926, PRO: CO 96/663.
- 389 Report by the Honourable W.G.A. Ormsby-Gore, 48.
- 390 See A. McPhee, *The Economic Revolution in British West Africa* (London, 1926); also R. Howard, *Colonialism and Underdevelopment in Ghana*, London, 1978.
- 391 McPhee, *Economic Revolution*, 115.
- 392 General Manager, *Railway Report*, 1930–31, 42.

Chapter 10

- 393 M. Weber, *General Economic History* (New York, 1927), 297.
- 394 J. Schumpeter, *Business Cycles* (New York, 1939), 341.
- 395 K. Marx, The Future Results of British Rule in India, in S. Avineri (ed.), *Karl Marx on Colonialism and Modernisation* (Garden City, 1968), 129.
- 396 W.W. Rostow, *The Stages of Economic Growth* (Cambridge, 1960), 55.
- 397 See A. Fishlow, *American Railroads and the Transformation of the Ante-Bellum Economy* (Cambridge, MA, 1965); R.W. Fogel, *Railroads and American Economic Growth* (Baltimore, 1964; G.R.. Hawke, *Railways and Economic Growth*

in *England and Wales, 1840–1870*, London, 1970); P. O'Brien, *Railways and the Economic Development of Western Europe 1830–1914* (London, 1983).

398 B.R. Mitchell, The Coming of the Railway and United Kingdom Economic Growth, *Journal of Economic History*, 24, No. 3 (1964), 315–36.

399 C.M. White, The Concept of Social Saving in Theory and Practice, *The Economic History Review*, 29 (1976), 82–100.

400 Szereszewski's *Structural Changes in the Economy of Ghana, 1891–1911* could be considered to be an exception to this rule. However, this work is weakened by the paucity of the data, and more importantly, its terminal year was 1911, when the railways had not reached full maturity.

401 White, Concept of Social Saving.

402 The total land surface area of the colony, Ashanti and the Northern Territories was approximately 92,000 square miles.

403 Governor to Secretary of State, 13 April 1920, PRO: CO 96/611.

404 Governor to Secretary of State, 14 April 1920, PRO: CO 96/611.

405 Governor to Secretary of State on Deforestation, 12 June 1920, PRO: CO 96/613.

406 General Manager, *Railways Report*, 1917, 34.

407 Governor to Secretary of State, 5 May 1922, PRO: CO 96/652.

408 Marx, *British Rule in India*, 129.

409 Chamberlain's speech in House of Commons, 20 March 1893, quoted in C.W. Boyd, *Mr Chamberlain's Speeches*, Vol. 2 (London, 1914), 351.

410 GBPP, Papers Relating to the Construction of Railways, 16–17.

411 R. Dummett, Joseph Chamberlain, Imperial Finance, and Railway Policy in British West Africa in the Late Nineteenth Century, *English Historical Review*, 90 (1975), 287–321.

412 Ibid.

413 Colonial Office Minute, 18 September 1914, PRO: CO 96/539.

414 Colonial Office to Crown Agents, 5 November 1915, PRO: CO 96/562.

415 GBPP, Railway Construction in Sierra Leone, 22.

416 See Chief Commissioner Watherston to Governor Rodger, undated, enclosed in Governor to Secretary of State on the Recruitment of Indentured Labour from the Northern Territories, 20 May 1907, PRO: CO 96/457.

417 F.D. Lugard, *The Dual Mandate in Tropical Africa* (Edinburgh and London, 1929), 463.

-
- 418 A. McPhee, *The Economic Revolution in British West Africa* (London, 1926), 278.
- 419 R. Howard, *Colonialism and Underdevelopment in Ghana* (London, 1978), 165.
- 420 G.B. Kay, *The Political Economy of Colonialism in Ghana, A Collection of Documents and Statistics, 1900–1960* (Cambridge, 1972), 20–2.
- 421 P.R. Gould, *The Development of Transportation Pattern in Ghana* (Evanston, 1960), 36.
- 422 General Manager, *Railways Report*, 1912, 24.
- 423 General Manager, *Railways Report*, 1904, 13.
- 424 Governor to Secretary of State, 14 August 1920, PRO: CO 96/611.
- 425 General Manager, *Railways Report*, 1917, 30.
- 426 Ibid., 35.
- 427 Governor's Memorandum on Transportation to the Honourable Ormsby-Gore, Visiting Parliamentary Under-Secretary of State for the Colonies, 3 March 1926, PRO: CO 96/663.
- 428 The total number of African mine workers was 12,465 in 1905, fluctuating in 1906–18 to between 13,580 and 18,466, and in 1919–1932/33 to between 10,439 and 13,227. R.R. Kuczynski, *Demographic Survey of the British Colonial Empire, Vol. 1, West Africa* (London, 1948), 424.
- 429 *Stock Exchange Yearbook* (London, 1910, 1939) quoted in Howard, *Colonialism and Underdevelopment*, 65.
- 430 General Manager, *Railways Report*, 1919, 39.
- 431 General Manager, *Railways Report*, 1918, 7.
- 432 Ibid.
- 433 The Story of the Basel Trading Company Limited, supplement to the *West African Review* (November 1935), 14, quoted in Howard, *Colonialism and Underdevelopment*, 73.
- 434 United Africa Company, What Cocoa Means to the Economy of the Gold Coast, *Statistical and Economic Review*, No. 2 (September 1948), 2, quoted in *ibid.*, 73–4.
- 435 Szereszewski doubted if combined cocoa and coffee acreage in 1891 was greater than 1,000 acres. Szereszewski, *Structural Changes*, 21.
- 436 Gould, *Transportation Pattern*, 19.
- 437 Colonial Secretary's Minute, Accra, 2 August 1907, PRO: CO 96/461.

438 For a full discussion of the entrepreneurial abilities of the pioneer cocoa farmers, see P. Hill, *The Migrant Cocoa Farmers of Southern Ghana* (Cambridge, 1963).

439 See Colonial Office Minute, July 1900, which stated that decisions about future lines were not to be made known to the public to avoid speculation in land. CO Print Africa No. 363; G. Dudgeon, Fourth Report on the Agricultural and Forest Products of the Gold Coast and Ashanti, mentioned that the people of Begoro and Upper Birim petitioned the Colonial Government for railways. *Government Gazette*, 24 April 1909.

440 G.J. Austin, *The Growth of Cocoa Farming in South Ashanti, 1896–1914* (PhD thesis, University of Birmingham 1984), 21.

441 Ibid.

442 General Manager, *Railways Report for the Half Year Ending 30 June 1904*, 1905, 409.

443 General Manager, *Railways Report*, 1906, 4.

444 General Manager, *Railways Report*, 1907, 22.

445 See General Manager, *Annual Railway Reports*, 1912–15.

446 General Manager, *Railways Report*, 1927–28, 33.

447 Report of the Railway Revenue Committee, 25–30.

448 Governor's Annual Address, Legislative Council Debates, 1923–25, 18.

449 Annual Colonial Report on the Gold Coast, 1935–36, 17.

450 Chief Commissioner, Annual Report on Ashanti, 1915, 9.

451 Despatches on the Subject of the Report of the Commission of Inquiry regarding the Consumption of Spirits in the Gold Coast, Sessional Paper No. XVII of 1930–31, 10.

452 Ibid., Memorandum submitted by Omanhene of Ashanti-Brekum, 11 August 1929.

453 General Manager, *Railways Report*, 1917, 32.

454 Provincial Commissioner, *Western Province Report*, 1916, 7.

455 General Manager, *Railways Report*, 1917, 28.

456 See J.D. Fage, *Ghana, A Historical Interpretation* (Madison, 1961), 19–20.

457 Governor Nathan to Chamberlain, 17 March 1902, PRO: CO 96/395.

458 Austin, *Cocoa Farming in South Ashanti*, 28.

459 M.H. Kingsley, *West African Studies* (London, 1901), 399.

460 A.G. Hopkins, *An Economic History of West Africa* (London, 1973), 131.

461 F.J. Teal, *Growth, Comparative Advantage and Economic Effect of Government: A Case Study of Ghana* (PhD thesis, University of London, 1984), 110.

Chapter 11

462 Agbodeka, *African Politics*, 1–15.

463 Cape Coast Chamber of Commerce to Manchester Chamber of Commerce, 6 February 1895; Manchester Chamber of Commerce to Colonial Office, 20 February 1895; PRO: CO 96/320.

464 Tolls were abolished on the Cape Coast–Prasuh trade route after 1896. *Ibid.*, Colonial Office to Manchester Chamber of Commerce.

465 Acting Governor Hodgson to Secretary of State, Provision of Carriers for Government Transport Service, 27 January 1898, PRO: CO 96/380.

466 *Ibid.*

467 Gold Coast Annual Report, 1901, 21.

468 Chief Commissioner, *Ashanti Report*, 1905, 29.

469 Chief Commissioner, *Ashanti Report*, 1906, 19.

470 Chief Commissioner, *Ashanti Report*, 1907, 23.

471 *Ibid.*, 22.

472 Commissioner, *Eastern Province Report*, 1910, 30.

473 Commissioner, *Eastern Province Report*, 1911, 31.

474 Chief Commissioner, *Ashanti Report*, 1915, 7.

475 General Manager, *Railways Report*, 1911, 18.

476 A.I. Nwabughuogu, From Wealthy Entrepreneurs to Petty Traders: The Decline of African Middlemen in Eastern Nigeria, 1900-1950, *Journal of African History*, 23 (1982), 365–79.

477 Twentieth-century West African commercial history has mainly concentrated on the development of trade. *Ibid.*

478 Chief Commissioner, *Ashanti Report*, 1920, 10.

479 Chief Commissioner, *Ashanti Report*, 1907, 23.

480 According to the 1931 Census returns, there were at that time 1,500 cocoa brokers and 37,000 sub-brokers in the Gold Coast.

481 Chief Commissioner, *Ashanti Report*, 1906, 19.

-
- 482 Chief Commissioner, *Ashanti Report*, 1907, 24.
- 483 Howard, *Colonialism and Underdevelopment*, 188.
- 484 Ibid., 189.
- 485 Chief Commissioner, *Northern Territories Report*, 1904, 7–8.
- 486 Chief Commissioner, *Northern Territories Report*, 1905, 8.
- 487 Chief Commissioner, *Northern Territories Report*, 1909, 8.
- 488 General Manager, *Railways Report*, 1913, 18.
- 489 Reduction of Railway Rates in the Gold Coast, 1929, 7.
- 490 Nii Kwabena Bonne III, *Milestones in the History of Railway Rates in the Gold Coast* (Middlesex, 1953), 65.
- 491 Chief Commissioner, *Northern Territories Report*, 1907, 19.
- 492 Chief Commissioner, *Northern Territories Report*, 1918, 8.
- 493 R.S. Rattray, *Religions and Art in Ashanti*, London, 1927, 235.
- 494 Chief Commissioner, *Ashanti Report*, 1910, 5.
- 495 Inez Sutton, The Volta River Salt Trade: Survival of an Indigenous Industry, *Journal of African History*, 22 (1981).
- 496 J.D. Dupuis, *Journal of a Residence in Ashanti*, Part II (London, 1824), xxx.
- 497 War Office to Crown Agents, The Town of Kumasi, 10 June 1899, PRO: CO 96/380.
- 498 Consulting Engineers' Minutes, 20 June, in *ibid.*
- 499 Ibid.
- 500 Gold Coast Annual Report, 1907, 29.
- 501 Ibid.
- 502 Chief Commissioner, *Ashanti Report*, 1915, 17.
- 503 P.S. Selwyn-Clarke, Report on the Outbreak of Plague in Kumasi, Ashanti, 1925, 14.
- 504 F.G. Guggisberg, *The Gold Coast, A Review of the Events of 1920–1926 and the Prospects for 1927–28* (Accra, 1927), 118–20.
- 505 D.M. and F.G. Guggisberg, *We Two in West Africa* (London, 1909), 45.
- 506 Ibid.
- 507 Governor to Colonial Office, 13 April 1907, PRO: CO 96/457.
- 508 General Manager, *Railways Report*, 1913, 23.
- 509 Guggisberg, *Events*, 129.
- 510 Colonial Office Minute, Tarkwa Railway Conference, 16 June 1898, PRO: CO 96/360.

-
- 511 Kuczynski, *Demographic Survey*, 419–20.
512 Commissioner, *Western Province Report*, 1906, 13.
513 Commissioner, *Western Province Report*, 1909, 17.
514 Governor to Secretary of State, on the proposed Akwapim Railway, 18 April 1902, PRO: CO 96/395.
515 Guggisberg, *Events*, 129.
516 J. Hinderink and J. Sterkenburn, *Anatomy of an African Town* (Utrecht, 1975), 28.
517 General Manager, *Railways Report*, 1912, 13.
518 General Manager, *Railways Report*, 1924–25, 19.
519 Governor to Secretary of State, 10 April 1917, Report on War Time Discoveries of Mr Kitson, Director of Geological Survey, PRO: CO 96/579.
520 Colonial Office Memorandum on Obuasi Hospital transfer, 21 April 1903, PRO: CO 96/452.
521 Report on Plague in Kumasi, 14. See also David Scott, *Epidemic Disease in Ghana, 1901–1966* (London, 1965), 15–18; J.W. Brown, Increased Intercommunication and Epidemic Disease in Early Colonial Ashanti, in G.W. Hartwig and K.D. Patterson (eds.), *Disease in African History* (Durham, 1978), 180–206.
522 In 1913, the Northern Territories chiefs threatened to halt labour migration if steps were not taken to cure men of the ‘Kumasi sickness’. Chief Commissioner, *Northern Territories Report*, 1913, 19.

Chapter 12

- 523 A.Fishlow, *American Railroads and the Transformation of the Ante-Bellum Economy*, (Cambridge, MA, 1965), 303.
524 R.W.,Fogel, *Railroads and American Economic Growth* (Baltimore, 1964), 234–5.
525 G.R. Hawke, *Railways and Economic Growth in England and Wales, 1840–1870*, (London, 1970), 410.
526 R.A. Church, *The First Great Victorian Boom 1850–1873* (Basingstoke, 1975), 31.
527 P. O’Brien, *The New Economic History of Railways* (London, 1977), 27–8.
528 T.R. Gourvish, *Railways and the British Economy 1830–1914* (Basingstoke, 1980), 38.

529 J.R. Clark, Common and Disparate Elements in National Growth and Decline, *Problems in the Study of Economic Growth* (National Bureau of Economic Research, July 1949), 30. Quoted in M., Abramovitz, The Economic Characteristics of Railroads and the Problem of Economic Development, *Far Eastern Quarterly*, 14 (1954–55), 169–78.

530 See M.C. Reed (ed.), *Railways in the Victorian Economy: Studies in Finance and Economic Growth* (Newton Abbot, 1969); Gourvish, *Railways and British Economy*; and O'Brien, *Railways and the Economic Development of Western Europe*.

531 B.R. Mitchell, The Coming of the Railway and United Kingdom Economic Growth, *Journal of Economic History*, 24 (1964), 14.

532 Ibid.

533 See L.H. Gann and P. Duignan (eds.), *Colonialism in Africa, 1870–1960* (Cambridge, 1969), 109; Roland Oliver and Anthony Atmore, *African since 1800* (Cambridge, 1967), 144–5; J.F. Munro, *Africa and the International Economy, 1800–1960* (London, 1976), 92–5; and *Britain in Tropical Africa 1880–1960, Economic Relations and Impacts* (London, 1984), 32.

534 J.F. Munro, *African and the International Economy, 1800–1960* (London, 1976), 94.

535 See Sir Edward Grigg's Preface to Hill's *Permanent Way*.

536 Michael Crowder, *West Africa under Colonial Rule* (Evanston, 1968), 273.

537 A.M. O'Connor, *Railways and Development in Uganda* (Nairobi, 1965), 47, 49, 139–40.

538 Daniel Thorner, The Pattern of Railway Development in India, *Far Eastern Quarterly*, 14 (1954–55), 201–16.

539 Ibid.; also see , J.M. Hurd, Railways, in K. Dharma and D. Meghnad (eds.), *The Cambridge Economic History of India, Vol 2, C.1757–1970*, London, 1983.

540 A. Kaur, Impact of Railroads on the Malayan Economy 1874–1941, *Journal of Asian Studies*, 39 (1979–80), 693–710.

541 J.H. Coatsworth, Indispensable Railways in a Backward Economy: The Case of Mexico, *Journal of Economic History*, XXXIX (1979).

542 Piet Konings, Solving Transportation Problems in African Cities: Innovative Responses by the Youth in Doula, Cameroon, *Africa Today*, 53(1), 35–50.

543 R.G. Wilkinson, *Mind the Gap: Hierarchies, Health and Human Evolution* (New Haven, 2000); and WHO Commission on Social Determinants of

Health, *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health* (Geneva, 2008).

Bibliography

- Abramovitz, M., The Economic Characteristics of Railroads and the Problem of Economic Development, *Far Eastern Quarterly*, 14 (1954–55).
- Agbodeka, F., *African Politics and British Policy in the Gold Coast*, 1868–1900, London, 1971.
- Aldcroft, D.H., The Efficiency and Enterprise of British Railways, 1870–1914, *Explorations in Entrepreneurial History*, V (1968).
- Amery, L.S., *My Political Life*, Vol. 2, London, 1953.
- Austin, G.J., The Growth of Cocoa Farming in South Ashanti, 1896–1914, PhD thesis, University of Birmingham, 1983.
- Bigland, A., The Empire Assets and How to Use Them, *Journal of the Royal Society of Arts*, LXV (1917).
- Boahen, A., *Ghana: Evolution and Change in the Nineteenth and Twentieth Centuries*, London, 1975.
- Bonne, M.K., III, *Milestones in the History of the Gold Coast*, Middlesex, 1953.
- Boyd, C.W., *Mr Chamberlain's Speeches*, London, 1914.
- Brett, E.A., *Colonialism and Underdevelopment in East Africa*, London, 1953.
- Brown, J.W., Increased Intercommunications and Epidemic Disease in Early Colonial Ashanti, in G.W. Hartwig and K.D. Patterson (eds.), *Disease in African History*, Durham, 1978.
- Chada, G., Labour Protest, Group Consciousness and Trade Unionism in West Africa: The Radical Railway Workers of Colonial Ghana, 1900–1950, PhD thesis, University of Toronto, 1981.
- Chandler, A.D., Jr., *The Railroads, the Nations' First Big Business, Sources and Readings*, New York, 1965.
- Chisholm, M.D., *Rural Settlement and Land Use*, London, 1969.
- Church, R.A., *The First Great Victorian Boom, 1850–1973*, Basingstoke, 1975.
- Coatsworth, J.H., Indispensable Railways in a Backward Economy: The Case of Mexico, *Journal of Economic History*, XXXIX, (1979).
- Colonial Office Records in the Public Record Office, London PRO: CO:
CO 96 Gold Coast, Original Correspondence: 1879–1930.
CO 98 Gold Coast, Legislative Council Debates: 1900–1930.
CO 99 Gold Coast, Government Gazette: 1898–1930.
CO 451, Africa, 1889.
CO 464, Africa, 1889–1895.

- CO 473, Africa, 1896.
- CO 513, Africa, 1895.
- CO 531, Africa, 1897–1898.
- CO 563, Africa, 1895–1898.
- CO 578, Africa, 1899–1900.
- CO 879 Colonial Confidential Print, Africa (West): 1879–1903.
- Conway, H.E., Labour Protest Activity in Sierra Leone During the Early Part of the Twentieth Century, *Labour History* (Canberra), No. 15, November 1968.
- Cosby, C.A.M., A History of the Nyasaland Railways, 1895–1935: A Study of Colonial Economic Development, PhD thesis, Syracuse University, 1974.
- Crisp, J., *The Story of an African Working Class, Ghanaian Miners' Struggles, 1870–1980*, London, 1984.
- Crowder, M., *West Africa Under Colonial Rule*, Evanston, 1968.
- D'Almada, J., *An Historical Outline of the Benguela Railway*, London, 1951.
- D'Erlanger, E.B., *The History of the Construction of the Rhodesian Transport System*, London, 1931.
- Decker, L.E., *Railroads, Lands, and Politics: the Taxation of the Railroad Land Grants, 1864–1897*, Chicago, 1964.
- Drummond, I.M., *British Economic Policy and the Empire*, London, 1919.
- Duignan, P. and Gann, L.H., *Colonialism in Africa: Vol. 4, The Economics of Colonialism*, Cambridge, 1975.
- Dummett, R.E., British Official Attitudes in Relation to Economic Development in the Gold Coast, 1874–1905, PhD thesis, University of London, 1966.
- Dummett, R.E., Joseph Chamberlain, Imperial Finance, and Railway Policy in British West Africa in the Late Nineteenth Century, *English Historical Review*, 90 (1975).
- Dupuis, J.D., *Journal of a Residence in Ashanti*, London, 1824.
- Fage, J.D., *Ghana, A Historical Interpretation*, Madison, 1961.
- Feldtman, W.R., The Ashanti Goldfields Corporation, *The Mining Magazine* (May 1916).
- Fishlow, A., *American Railroads and the Transformation of the Ante-Bellum Economy*, Cambridge, MA, 1965.
- Fishlow, A., Internal Transportation, in L.E. Davis et al., *American Economic Growth, An Economist's History of the United States*, New York, 1972.
- Fogel, R.W., *Railroads and American Economic Growth*, Baltimore, 1964.

- Ford, S.H., Manganese in West Africa, *The Mining Magazine*, (December 1919).
- Frankle, S.H., *Capital Investment in Africa*, London, 1938.
- Fraser, P., *Joseph Chamberlain, Radicalism and Empire, 1868–1914*, London, 1966.
- Gann, L.H. and Duignan, P. (eds.), *Colonialism in Africa, 1870–1960*, Cambridge 1969.
- Gold Coast, Official Publications (GGOP):
Annual Administrative Report for the Half Year Ending 30 June 1904, (Accra, 1905), 409.
Annual Reports on Ashanti: 1901–1930.
Annual Reports on the Eastern Province: 1906–1930.
Annual Reports on the Gold Coast: 1890–1930.
Annual Reports on the Northern Territories: 1901–1930.
Annual Reports on the Railway Department: 1904–1930.
Annual Reports on the Treasury Department: 1900–1930.
Annual Reports on the Western Province: 1906–1930.
Annual Reports on the Transport Department: 1901–1930.
Correspondence Relating to the Construction of the Central Province Railway, Sessional Paper No. 14 of 1922–23 (1923).
Despatches on the Subject of the Proposed Central Province Railway, Sessional Papers No. 14 of 1922–23 (1923).
Despatches on the Subject of the Report of the Commission of Inquiry Regarding the Consumption of Spirits in the Gold Coasts, Sessional Paper No. XVIII of 1930–31 (1931).
Despatches Relating to Kumasi Water Supply Scheme, Sessional Paper No. 7 of 1930–31 (1931).
Despatches Relating to the Construction of a Railway Between Kumasi and the Northern Territories of the Gold Coast, Sessional Paper, Np, XIV of 1929–30 (1930).
Gold Coast Railways, with Information about the Country, (Accra, 1925).
Gold Coast Sessional Paper No. 8, 1920–21, 62.
Messrs Stewart and McDonnell, *Report on the Takoradi Harbour and Railway Terminus* (London, 1920)
Papers Relating to the Coomasi–Tafo Railway (in continuation of Sessional Paper No. 5 of 1915, Sessional Paper No. XIII of 1918–19 (1919).
P.S. Selwyn-Clark, *Report on the Outbreak of Plague in Kumasi, Ashanti* (Accra, 1925).
Reduction of Railway Rates in the Gold Coast (Accra, 1929).

- Report and Recommendations of a Committee Appointed to Consider the Conditions of Service of Railway Mechanics*, Sessional Paper No. XIX of 1918–19 (1919).
- Report on the Central Province Trade Routes Committee*, Sessional Paper No. 6 of 1928–29 (1929).
- Report on the Gold Coast Railways*, W.D. Waghon, 1912, 17.
- Report of the Railway Revenue Committee (Road vs. Railway)*, Sessional Paper No. 3, of 1931–32 (1932).
- Statement Showing Area of Land Owned by Government in each Province and District in the Gold Coast in Relation to Total Area*, Sessional Paper No. 7 of 1931–32 (1932).
- Gould, P.R., *The Development of Transportation Pattern in Ghana*, Evanston, 1960.
- Gourvish, T.R., *Railways and the British Economy, 1830–1914*, Basingstoke, 1980.
- Great Britain, Parliamentary Papers (GBPP):
- Affairs in Ashanti* (C.7918, 1900).
- Correspondence Relating to the Queen's Jurisdiction in the Gold Coast and the Abolition of Slavery within the Protectorates* (C.1113, 1875).
- Gold Coast: Law and Regulations Affecting Lands and Mines and the Labour of Natives* (Cd. 575, 1901).
- Governor's Annual Address, Legislative Council Debates*, 1921–22, 29–48.
- Papers Relating to the Construction of Railways in Sierra Leone, Lagos and the Gold Coast* (Cd.2325, 1904)
- Railways in Sierra Leone, Lagos and Gold Coast*, 7.
- Report by W.G. Ormsby-Gore (Under-Secretary of State for the Colonies), on His Visit to West Africa During the Year 1926* (Cmd. 2744, 1926).
- Report of Committee on Private Enterprise in Tropical Africa* (London, 1924).
- Report on Economic Agriculture in the Gold Coast* (C.5891, 1889).
- Green, R.H. and Hymer, S.H., *Cocoa in the Gold Coast: A Study in the Relations between African Farmers and Agricultural Experts*, *Journal of Economic History*, XXVI (1966).
- Grey, Earl, *The Colonial Policy of Lord Russell's Administration*, London, 1853.
- Guggisberg, F.G., *The Gold Coast, A Review of the Events of 1920–1926 and the Prospects for 1927–28*, Accra, 1927.
- Guggisberg, D.M. and F.G., *We Two in West Africa*, London, 1909.
- Gutkind, P., Cohen, R. and Copans, S.J., *African Labour History*, London, 1978.
- Harding, S., *The Tropical Agenda*, *Journal of Tropical Psychology*, 1(1), 2–5.

- Hawke, G.R., *Railways and Economic Growth in England and Wales, 1840–1870*, London, 1970.
- Heussler, R., *British Rule in Malaya – The Malayan Civil Service and its Predecessors, 1867–1942*, London, 1981.
- Hinderink, J. and Sterkenburg, J., *Anatomy of an African Town*, Utrecht, 1975.
- Hill, M.F., *Permanent Way, The Story of Kenya and Uganda Railways*, 2 vols, London, 1952.
- Hill, P., *The Migrant Cocoa Farmers of Southern Ghana*, Cambridge, 1963.
- Hopkins, A.G., *An Economic History of West Africa*, London, 1973.
- Hopkins, A.G., Imperial Business in Africa, Part II, Interpretations, *Journal of African History*, XVII (1976).
- Howard, R., *Colonialism and Underdevelopment in Ghana*, London, 1978.
- Hughes, A. and Cohen, R., Nigeria's Working Class, in P. Gutkind, R. Cohen and S.J. Copans, *African Labour History*, London, 1978, 31–55.
- Hurd, J.M., Railways, in K. Dharma and D. Meghnad (eds.), *The Cambridge Economic History of India, Vol 2, C.1757–1970*, London, 1983.
- Ilegburne, C.U., Concessions Scramble and Land Alienation in British Southern Ghana, 1885–1916, *African Studies Review*, 29 (1976).
- Jeffries, R., *Class, Power and Ideology in Ghana: The Railwaymen of Sekondi*, London, 1978.
- Jenks, L.H., Railroads as an Economic Force in American Development, *Journal of Economic History*, IV (1944).
- Katzenhehenbogen, S.E., *Railways and Copper Mines of Katanga*, London, 1973.
- Kaur, A., The Impact of Railroads on the Malayan Economy 1874–1941, *Journal of Asian Studies*, 39 (1979–80).
- Kay, G.B., *The Political Economy of Colonialism in Ghana, A Collection of Documents and Statistics, 1900–1960*, Cambridge, 1972.
- Kellet, J.R., *The Impact of Railways on Victorian Cities*, London, 1969.
- Kesner, R.M., *Economic Control and Colonial Development: Crown Colony Financial Management in the Age of Joseph Chamberlain*, London, 1982.
- Kimble, D., *A Political History of Ghana, 1850–1928*, London, 1963.
- Kingsley, M.H., *West African Studies*, London, 1901.
- Konings, P., Solving Transportation Problems in African Cities: Innovative Responses by the Youth in Doula, Cameroon, *Africa Today*, 53(1), 35–50.
- Kuczynski, R.R., *Demographic Survey of the British Colonial Empire, Vol. 1, West Africa*, London, 1948.
- Lugard, F.D., *The Dual Mandate in Tropical Africa*, Edinburgh, and London, 1929.

- McPhee, A., *The Economic Revolution in British West Africa*, London, 1926.
- Marlow, J., *Milner, Apostle of Empire*, London, 1976.
- Marx, K., The Future Results of British Rule in India, in S. Avineri (ed.), *Karl Marx on Colonialism and Modernisation*, Garden City, 1968.
- Meredith, D.G., The British Government and Colonial Economic Development with Particular Reference to British West African, 1919–1939, PhD thesis, University of Exeter, 1976.
- Migeod, F.W., *Papers, Letters and other Papers Relating to the Writer's Service in the Gold Coast Transport Department, 1901–1919*, Royal Commonwealth Society Library, London.
- Miller, R., Transforming Techniques: Railway Building and Management in South America, Paper presented at the Third World Economic History Group Conference, University of Leicester, September, 1984.
- Milner, A., *Crown Colonies: The Nation and the Empire*, London, 1913.
- Mitchell, B.R., The Coming of the Railway and United Kingdom Economic Growth, *Journal of Economic History*, 24 (1964).
- Mitchell, B.R., The Coming of the Railway and United Kingdom Economic Growth, in M.C. Reed (ed.), *Railways in the Victorian Economy, Studies in Finance and Economic Growth*, Newton Abbot, 1969.
- Morell, E.D., *Affairs in West Africa*, London, 1902.
- Morris, A.W., Extract from private diary, quoted in Director of Public Works, *Gold Coast Railways, With Information about the Country*, Accra, 1925, 7.
- Munro, J.F., *African and the International Economy, 1800–1960*, London, 1976.
- Munro, J.F., *Britain in Tropical Africa 1880–1960, Economic Relations and Impact*, London, 1984.
- Myint, H., *Economic Theory and the Underdeveloped Countries*, London, 1981.
- Nwabughuogu, A.I., From Wealthy Entrepreneurs to Petty Traders: The Decline of African Middlemen in Eastern Nigeria, 1900–1950, *Journal of African History*, 23 (1982).
- O'Brien, P., *The New Economic History of Railways*, London, 1972.
- O'Brien, P., *Railways and the Economic Development of Western Europe, 1830–1914*, London, 1983.
- O'Brien, T.H., *Milner: Viscount Milner of St. James' and Cape Town*, London, 1919.
- O'Connor, A.M., *Railways and Development in Uganda*, Nairobi, 1965.
- Oliver, R. and Atmore, A., *Africa since 1800*, Cambridge, 1976.

- Omosini, O., Railway Projects and British Attitudes towards the Development of West Africa, 1872–1903, *Journal of the Historical Society of Nigeria*, 4 (1971).
- Patterson, K.D., The Influenza Epidemic of 1918–19 in the Gold Coast, *Journal of African History*, 24 (1983).
- Phillips, A., The Makeshift Settlement: Colonial Policy in British West Africa, PhD thesis, The City University, 1982.
- Rattray, R.S., *Religion and Art in Ashanti*, London, 1972.
- Reed, M.C. (ed.), *Railways in the Victorian Economy*, Newton Abbot, 1969.
- Reynolds, E., *Trade and Economic Change on the Gold Coast, 1807–1874*, London, 1974.
- Ross, H.M., *British Railways, Their Organisation and Management*, London, 1904.
- Rostow, W.W., *The Stages of Economic Growth*, Cambridge, 1960.
- Sandbrook, R. and Cohen, R. (eds.), *The Development of an African Working Class*, London, 1975.
- Schumpeter, J., *Business Cycles*, New York, 1939.
- Scott, D., *Epidemic Disease in Ghana, 1901–1960*, London, 1965.
- Silver, J., The Failure of European Mining Companies in the Nineteenth Century Gold Coast, *Journal of African History*, 22 (1981).
- Simensen, J., Rural Mass Action in the Context of Anti-Colonial Protest: The Asafo Movement of Akim Abuakwa, Ghana, *Canadian Journal of African Studies*, 19 (1974).
- Simensen, J., The Asafo of Kwahu, Ghana: A Mass Movement for Local Reform under Colonial Rule, *International Journal of African Historical Studies*, 3 (1975).
- Stover, J., *American Railroads*, Chicago, 1961.
- Sutton, I., The Volta River Salt Trade: Survival of an Indigenous Industry, *Journal of African History*, 22 (1981).
- Sutton, I., Labour in Commercial Agriculture in Ghana in the Late Nineteenth and Early Twentieth Centuries, *Journal of African History*, 24 (1983).
- Szereszkesew, R., *Structural Changes in the Economy of Ghana*, London, 1965.
- Teal, F.J., Growth, Comparative Advantage and Economic Effect of Government: A Case Study of Ghana, PhD thesis, University of London, 1984.
- The Trade and Mining Industry of the Gold Coast, 1895–1899, *The Economist*, 7 October 1899.

- Thomas, R.G., Forced Labour in British West Africa: The Case of the Northern Territories of the Gold Coast, 1906–1927, *Journal of African History*, 1 (1973).
- Thorner, D., The Pattern of Railway Development in India, *Far Eastern Quarterly*, 14 (1954–55).
- Tsey, K., Re-thinking Development in Africa, Langaa Research and Publishing CIG: Mankon, Bamenda, 2011.
- Tsey, K. and Short S.D., From Head-loading to the Iron Horse: The Unequal Health Consequences of Railway Construction and Expansion in the Gold Coast (Ghana), *Social Science and Medicine*, 40(5), 613–21.
- Ulmer, M.J., Trends and Cycles in Capital Formation by United States Railroads, 1870–1950, National Bureau of Economic Research, Occasional Paper 43 (1954).
- Van Zwaneberg, R.H.A. with King, A., *An Economic History of Kenya and Uganda, 1800–1970*, London, 1975.
- Ward, W.E.F., *A History of Ghana*, London, 1958.
- Weber, M., *General Economic History*, New York, 1927.
- White, C.M., The Concept of Social Saving in Theory and Practice, *The Economic History Review*, 29 (1976).
- White, H.P., The Togoland Railways, *Railway Magazine* (May 1952).
- Wilkinson, R.G., *Mind the Gap: Hierarchies, Health and Human Evolution*, New Haven, 2000.
- Wilks, I., *Ashanti in the Nineteenth Century*, Cambridge, 1975.
- WHO Commission on Social Determinants of Health, *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health*, Geneva, 2008.
- Wraith, R.E., *Guggisberg*, London, 1967.

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